R3840-SU 5/89

The Health of America's Children

MATERNAL AND CHILD HEALTH DATA BOOK

Adolescent Pregnancy Prevention:
Prenatal Care Campaign

Children's Defense Fund

About CDF

The Children's Defense Fund (CDF) exists to provide a strong and effective voice for the children of America who cannot vote, lobby, or speak for themselves. We pay particular attention to the needs of poor, minority, and handicapped children. Our goal is to educate the nation about the needs of children and encourage preventive investment in children before they get sick, drop out of school, suffer family breakdown, or get into trouble.

CDF is a unique organization. CDF focuses on programs and policies that affect large numbers of children, rather than on helping families on a case-by-case basis. Our staff includes specialists in health, child care, education, child welfare, mental health, child development, adolescent pregnancy prevention, homelessness, and employment. CDF gathers data and disseminates information on key issues affecting children. We monitor the development and implementation of federal and state policies. We provide information, technical assistance, and support to a network of state and local child advocates. We pursue an annual legislative agenda in the United States Congress and litigate selected cases of major importance. CDF's major initiatives include our adolescent pregnancy prevention program and a prenatal care campaign. CDF educates millions of citizens annually about children's needs and responsible policy options for meeting those needs.

CDF is a national organization with roots in communities across America. Although our main office is in Washington, D.C., we reach out to towns and cities across the country to monitor the effects of changes in national and state policies and to help people and organizations who are concerned with what happens to children. CDF maintains state offices in Minnesota, Mississippi, Ohio, and Texas. CDF has developed cooperative projects with groups in many states.

CDF is a private organization supported by foundations, corporate grants, and individual donations.

The Health of America's Children

MATERNAL AND CHILD HEALTH DATA BOOK

By
Dana Hughes
Kay Johnson
Sara Rosenbaum
Joseph Liu

**Adolescent Pregnancy Prevention:
Prenatal Care Campaign**

Children's Defense Fund

Copyright ©1989 by the Children's Defense Fund.
All Rights Reserved.

ISBN: 0-938008-69-2

Acknowledgments

This book could not have been produced without assistance and contributions by the following people:

- Melva Edmondson, who entered all of the numbers and typed and retyped hundreds of pages of text.
- David Heffernan, Janis Johnston, and Donna Jablonski, who worked tirelessly to produce this book.
- Stefan Harvey of the Center on Budget and Policy Priorities, Washington, D.C., who assisted us in obtaining and analyzing the national and state data on the Special Supplemental Food Program for Women, Infants, and Children (WIC).
- Paul Smith, CDF's research director, who designed the computer programs that produced this book, and Jim Weill, CDF's program director, for his insights, thoroughness, and guidance.
- Janet Simons, of CDF's research division, for help in gathering data and serving as a resource on methodological questions.

We also wish to convey our deepest gratitude to Selma Taffel and Stephanie Ventura at the National Center for Health Statistics, U.S. Department of Health and Human Services, for providing us with the vital statistics data for the nation and the states that appear throughout this book.

The printing of this book was made possible through the March of Dimes Birth Defects Foundation and the Healthdyne Corporation. The Ruth Mott Fund and The Starr Foundation provide support for CDF's Prenatal Care Campaign. The Charles Revson Foundation provides funding for all CDF publications.

Contents

Foreword ix
Key Findings ix
Progress Toward Meeting the Surgeon General's Maternal and Child Health Objectives xii
What Must Be Done xiv

Part One: The Health Status of Mothers, Infants, and Children 1

Maternal and Infant Health—National Findings 3
Infant Mortality 3
Neonatal Mortality, Low Birthweight, and Prematurity 5
Perinatal Mortality 7
Postneonatal Mortality 8
Causes of Death 9
Maternal Mortality 10

International Findings 12

State Findings 14
State Infant Health Trends 14
Infant Mortality, Neonatal Mortality, Postneonatal Mortality, and Low Birthweight 15

City Findings 22

Births to Teens 24
National Findings 24
State Findings 24
Births to Teens and the Risk of Low-Birthweight Births 24

Births to Unmarried Women 26
National Findings 26
State Findings 31

Child Health Status 32
General Health Status and the Risk of Disability 32
Lead Poisoning 34
AIDS 36

Part One Notes 39

Figures
1.1 Infant Mortality Rates, by Race, U.S., 1978-1986 6
1.2 Neonatal and Postneonatal Mortality Rates, by Race, 1978-1986 7
1.3 Infant and Perinatal Mortality, U.S., 1965-1986 8
1.4 Infant Mortality Thermometer 13
1.5 Infant Mortality Rate in Each State, Black Infants; United States, 1938-1940 16
1.6 Infant Mortality Rates, by State, Black, 1986 17
1.7 Percent of Babies Born to Mothers Receiving Late or No Prenatal Care, by Age of Mother, U.S., 1986 25
1.8 Percent of Children 5-17 Years Old in Excellent Health, by Family Income, U.S., 1986 32
1.9 Estimated Percentage of Urban Children 6 Months to 5 Years Old With High Blood Lead Levels, by Annual Family Income and Race, 1984 34

Tables

1.1 United States Fact Sheet, 1986 **4**
1.2 Maternal and Child Health Indicators and Percent Change per Year, All Races, U.S., Selected Years **5**
1.3 Infant Mortality Rates for 15 of the Leading Causes of Death, by Race, U.S., 1986 **9**
1.4 Neonatal Mortality for the 15 Leading Causes of Death, U.S., 1986 **10**
1.5 Postneonatal Mortality for the 15 Leading Causes of Death, U.S., 1986 **11**
1.6 The Four Leading Causes of Maternal Mortality, by Race, 1986 **11**
1.7 Estimated Numbers and Rates of Ectopic Pregnancies, U.S., 1970-1985 **12**
1.8 Infant Mortality Rates, Selected Countries, 1986 **14**
1.9A-D Mortality Rates in the First Year of Life and Low-Birthweight Births, 1986 **18**
1.10 Infant Mortality Rates for Cities of 500,000+ Population, 1986 **23**
1.11 Birth Outcome and Prenatal Care, by Age, U.S., 1986 **26**
1.12A-D Births to Women under Age 20 and the Risk of Low-Birthweight Births, 1986 **27**
1.13 Percentage of Births to Unmarried Women, by Race, U.S., 1970-1986 **31**
1.14 Child Health Status, by Age, Race, and Annual Income, 1986 **33**
1.15 Estimated Number of Children 6 Months to 5 Years Old Who Were Exposed to Lead, by Blood Lead Levels and Urban Status, 1984 **35**
1.16 Estimated Number of Women of Childbearing Age and Pregnant Women Living in Cities Who Were Exposed to Lead, by Blood Lead Levels, Age, and Race, 1984 **36**
1.17 Reported AIDS Cases Among Children Under Age 13, by State **38**

Part Two: Insurance Coverage and Health Care Utilization Patterns Among Children and Pregnant Women 41

Children's Health Insurance Status 43
Family Income, Employment, and Health Insurance Status **43**
Race and Health Insurance Status **46**
Insurance Coverage of Women of Childbearing Age **48**

Utilization of Health Services 49
Prenatal Care Utilization **50**
National Findings **50**
Early Prenatal Care **50**
Late or No Prenatal Care **51**
The Adequacy of Care **53**
State Findings **54**
Early Prenatal Care and Adequat · Prenatal Care **54**
Prenatal Care and Low Birthweig. ' **59**
Prenatal Care Trends **60**

Use of Health Services by Children
Children's Immunization Status **62**

Part Two Notes 66

Figures

2.1 White Children in Employed Families, by Insurance Status, 1986 **46**
2.2 Black Children in Employed Families, by Insurance Status, 1986 **47**
2.3 Percent of Women Ages 15-44 Without Private Health Insurance, by Selected Characteristics, 1985 **49**
2.4 Percent of Women 19-44 Years of Age Obtaining Reproductive Care from Obstetricians-Gynecologists, by Poverty Level and Insurance Coverage, U.S., 1980 **50**
2.5 Percent of 20- to 44-Year-Old Women With Delayed Prenatal Care, by Insurance Status at the Time of Delivery, and Race, 1982 **51**
2.6 Percent of Women Ages 15-44 Without Health Insurance for Maternity Care, and Percentage Without Coverage at Delivery, by Selected Characteristics, 1985 **52**
2.7 Infant Mortality, Low Birthweight, and Late and No Prenatal Care, All Races, U.S., 1978-1986 **53**
2.8 Infant Mortality, Low Birthweight, and Late or No Prenatal Care, Black, U.S., 1978-1986 **54**
2.9 Percent of Two-Year-Olds Who Were Fully Immunized, by Race, U.S., 1985 **62**
2.10 Pertussis (Whooping Cough), by Age Group, U.S., 1987 **64**
2.11 Percent of Children Ages 5-11 Who Visited a Dentist in the Previous Year, by Annual Family Income, U.S., 1986 **65**

Tables

2.1 Insurance Status of Children Younger than 18 in Families, by Income, Race, and Insurance Status, U.S., 1986 **44**
2.2 Insurance Status of Children Younger than 18 in Employed Families, by Income, Race, and Insurance Status, U.S., 1986 **45**
2.3 Percentage of Children in Families with Employer-Based Coverage with All Premiums Paid by Employer or Union, by Income, Age, and Race, U.S., 1986 **48**
2.4A-D Prenatal Care by Timing of Entry into Care and Adequacy and Low Birthweight, 1986 **55**
2.5 Prenatal Care Utilization and Birth Outcome for Infants Born to Hispanic and Non-Hispanic Mothers, U.S., 1986 **60**
2.6 Child Health Utilization by Race and Annual Income **61**
2.7 Percentage of Infants and Toddlers Who Were Fully Immunized, by Age and Race, U.S., 1980 and 1985 **63**

Part Three: Maternal and Child Health Programs 67

Medicaid 70

AFDC 71

Publicly Funded Sources of Health Care for Uninsured and Underserved Families 77
Community and Migrant Health Centers **77**
Health Manpower **77**
Title V **77**
Family Planning **77**
WIC **80**
Childhood Immunizations **80**

Recommendations 80
Maternity Care 80
Pediatric Services 81

Part Three Notes 83

Tables

3.1 Children's Share of Medicaid, U.S., 1980-1987 **70**
3.2 State Medicaid Eligibility Characteristics for Children and Pregnant Women, October 1988 **72**
3.3 State Medicaid Eligibility Levels for Children and Pregnant Women, October 1988 **73**
3.4 Characteristics of State AFDC Programs, 1986 **76**
3.5 Women and Children Served with Federal and State WIC Funds **78**

Part Four: National, State, and Large City Health Status and Trends 85

Tables

4.1 Infant Mortality Rates, by Race, U.S., 1940-1986 **87**
4.2 Neonatal Mortality Rates, by Race, U.S., Selected Years, 1950-1986 **88**
4.3 Postneonatal Mortality Rates, by Race, U.S., Selected Years, 1950-1986 **89**
4.4 Perinatal Mortality Ratios, by Race, U.S., 1950-1981 **90**
4.5 Maternal Mortality Rates, by Race, U.S., 1940-1986 **91**
4.6 Percentage of Infants Born at Low Birthweight, by Race, U.S., Selected Years, 1950-1986 **92**
4.7 Percentage of Infants Born at Very Low Birthweight, by Race, U.S., 1979-1986 **92**
4.8 Percentage of Babies Born to Women Receiving First Trimester Care, by Race, U.S., 1969-1986 **93**
4.9 Percentage of Babies Born to Women Receiving Late or No Prenatal Care, by Race, U.S., 1969-1986 **93**
4.10 Births to Mothers Younger Than 20 as a Percentage of Total Births, by Race, U.S., Selected Years, 1950-1986 **94**
4.11-4.16 State Health Trends Tables, by Race, 1978-1986 **95**
4.17-4.34 State Ranking Tables **119**
4.35A-D Infant Mortality Rates for Cities of 500,000+ Population, 1980-1986 **155**
4.36A-D Infant Mortality for Cities of 500,000+ Population, 1986, Ranking Tables **157**

Part Five: Technical Notes 159

Tables

5.1 Modified Kessner Index Criteria **163**
5.2 Low Birthweight Trends and Projections **164**
5.3 Costs of Neonatal Intensive Care for Low-Birthweight Infants, 1982 **167**
5.4 Costs of Rehospitalization of Low-Birthweight Infants, 1982 **168**

Foreword

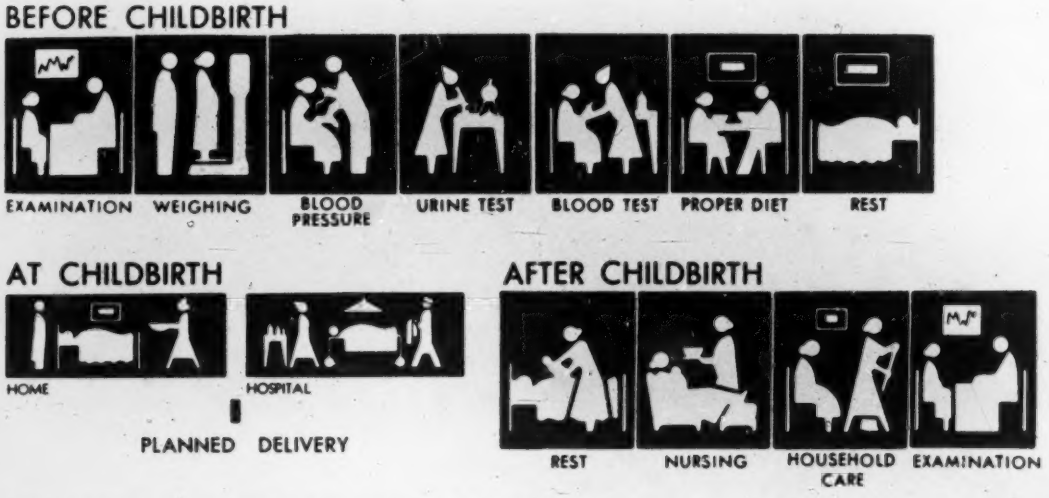
"Adequate care before, during and after childbirth is the right of every mother," wrote the U.S. Department of Labor's Children's Bureau in 1941. Yet, by 1986 nearly one in four babies was born to a mother who did not receive care that could be considered minimally adequate. In fact, prenatal care utilization worsened during the 1980s after a decade of steady improvement.

The Health of America's Children: Maternal and Child Health Data Book traces prenatal care utilization and other key maternal and child health indicators over time and assesses the nation's failure to ensure adequate care to its most vulnerable citizens. Specifically, the book examines national, state, and large city infant mortality rates; compares U.S. infant mortality rates with those of other countries; and assesses American children's and pregnant women's access to health care, patterns of childbearing among teenagers and unmarried women, private insurance coverage for children and pregnant women, and the nation's rate of progress toward achieving the Surgeon General's 1990 Objectives on seven key health indicators. The book also analyzes how well crucial public health and survival programs are meeting the needs of low-income mothers and children during a period of entrenched poverty and eroding employment-based health benefits that caused a dramatic one-third increase between 1978 and 1986 in the number of Americans without health insurance.

Key Findings

On key indicators such as infant mortality, prenatal care utilization, and low-birthweight births, the nation's rate of progress in 1986, as throughout the 1980s, was considerably slower than our rate of progress in the 1970s. The decline in infant mortality from 1984 to 1986 was the smallest for any two-year period since 1963-1965.

1. The slowing of black infant mortality improvement was greater than the slowing among whites. As a result, the black-white infant mortality "gap" of 2.02-to-1 in 1986 was the widest recorded disparity since reporting of these data



ADEQUATE CARE BEFORE, DURING, AND AFTER CHILDBIRTH IS THE RIGHT OF EVERY MOTHER

SOURCE: U.S. Department of Labor's Children's Bureau, 1941.

by race began in 1940. If current trends continue, by the year 2000 the black-white infant mortality gap will grow to 2.11 black infant deaths for every white infant death.

2. The overall U.S. infant mortality rate in 1986 placed it eighteenth worldwide, behind such nations as Spain, Singapore, and Hong Kong. When considered alone, the white infant mortality rate placed the nation tenth worldwide; the black rate placed it twenty-eighth, behind Cuba, Bulgaria, and Czechoslovakia and tied with Poland, Hungary, Portugal, and Costa Rica.

3. Urban black infant mortality rates were such that a black infant born in Indianapolis was more likely to die in the first year of life than an infant born in North or South Korea. A black infant born in Boston, Chicago, Detroit, the District of Columbia, Indianapolis, Los Angeles, or Philadelphia was as likely to die as an infant born in Trinadad and Tobago. In 1986, for the second year in a row, there was no statistically significant decline in the national black infant mortality rate. Not since the decade preceding establishment and expansion of the nation's publicly financed health programs, including Medicaid, Community Health Centers, the Title V Maternal and Child Health programs, and the Special Supplemental Food Program for Women, Infants, and Children (WIC) has there been such a sustained stagnation in the national rate of decline in black infant mortality.

4. Shocking national trends are magnified on the state level. South Dakota's overall infant mortality rate jumped 34 percent between 1985 and 1986. Even worse, among nonwhites in South Dakota (nearly all Native Americans) the infant mortality rate skyrocketed 84.6 percent to 27.5 deaths per 1,000 live births. In Alabama black infant mortality rose by more than 18 percent.

5. The high infant mortality rate in the United States is in significant part caused by the high rates of low-birthweight births. Low birthweight contributes to two-thirds of the deaths of babies in the first month of life. Between 1985 and 1986 there was no improvement in the proportion of infants born at low birthweight. Among black and all nonwhite infants, the incidence of low birthweight actually increased. As a result, the black-white low-birthweight gap in 1986 was the second highest ever recorded since data for blacks were first reported separately in 1969.

6. In 1986 black infants were far more likely than white infants to die of preventable causes. Death rates among black and white infants for congenital anomalies (generally unpreventable) were virtually identical. However, for many causes considered largely preventable through adequate maternity care and health and social services during the first year of life, black infants were significantly more likely to die than white infants. They were four times more likely to die from prematurity and low birthweight, two and one-half times more likely to die from pneumonia and influenza, and two times more likely to die as a result of newborn and maternal complications, newborn infections, and accidents.

7. In 1986 black and nonwhite mothers were three to four times more likely than white mothers to die of pregnancy-related causes. The four leading causes of maternal mortality (toxemia, hemorrhage, ectopic pregnancy, and complications during the forty-two day period following the end of pregnancy) are considered preventable or probably preventable.

8. Poor children are far less likely than more affluent children to receive needed health care. In 1986 the nation's poorest children younger than five were 36 percent less likely than the most affluent children to be reported in excellent health. The poorest children were much more likely to suffer activity limitations and miss school than their wealthiest counterparts. Black children younger than five were 25 percent less likely than white children to be in the best health. Older black children were 28 percent less likely to be reported in excellent health.

9. Lead poisoning has been identified by the American Academy of Pediatrics as one of the most important health hazards facing children. In 1984, an estimated 3 million to 4 million children younger than six had elevated blood

levels. One in six young children living in urban poor neighborhoods was found to have measurable lead toxicity, with a far lower prevalence among children living in more affluent suburban areas. More than 4 million women of childbearing age, including 400,000 pregnant women and their fetuses, had excessive levels of lead. Lead poisoning can lead to death in the most severe cases or permanent brain damage. Among babies born to mothers with lead toxicity, researchers have found a 50 to 600 gram drop in birthweights and mental development scores depressed by about eight points. Even a four-point average downward shift in mental development scores would result in a 50 percent increase in the proportion of children scoring in a developmental range associated with retardation.

10. AIDS is an increasingly serious problem among children. By the end of 1988, more than 1,300 cases of pediatric AIDS had been reported, resulting in more than 750 deaths. More than 1,000 cases of pediatric AIDS involved children younger than five. The Centers for Disease Control (CDC) estimate that by 1991 there will be some 10,000 to 20,000 HIV-infected children younger than thirteen in the United States. Between January 1988 and January 1989, nearly 600 new cases were reported among this age group and the number of pediatric AIDS cases virtually doubled for each racial and ethnic group. The vast majority of young children with, and exposed to, perinatally transmitted AIDS live in poor, inner-city neighborhoods with high concentrations of minority families. Of the total number of pediatric AIDS cases reported since 1981, black children accounted for 52 percent of all cases and 56 percent of cases among children younger than five. In contrast, black children account for only 15 percent of all children younger than five.

11. From 1980 to 1986 the proportion of medium-sized and large firms paying the full cost of the annual premium for family health care coverage dropped by one-third. The Congressional Research Service reports that virtually all of the growth in the number of uninsured Americans since 1980 is the result of declining employer-based coverage of dependents. Nearly 12 million—one out of every five—children were completely uninsured in 1986. Among poor children, 32.4 percent had no health insurance of any type. Even among the near-poor (children in families with incomes between 100 and 200 percent of the federal poverty level) 28.7 percent were uninsured. Working is not a complete defense against being uninsured. More poor children in working families than in nonworking families lacked coverage because Medicaid has failed to fill the gap left by erosion in the employer-based insurance system.

Regardless of income or employment status, black children were significantly less likely than whites to be protected against medical costs. Compared with whites, black children in employed families were 70 percent more likely to be uninsured.

In 1985 one out of four American women of childbearing age had either no insurance or insurance with no maternity care coverage. Uninsured women are about three times as likely to receive delayed prenatal care as women with private health insurance.

12. Prenatal care utilization continued to worsen. In 1986 a smaller percentage of mothers received early prenatal care than in 1980. In the 1970s the rate improved continuously. The percentage of babies born to mothers who received late or no prenatal care increased in 1986, the seventh year in a row of no improvement or worsening. Among black mothers, the late and no prenatal care figure increased in 1986 for the fifth time since 1980.

13. A smaller proportion of children were properly immunized in 1985 than in 1980. In 1985 the proportion of infants younger than one with at least one dose of polio or diphtheria, pertussis, and tetanus (DPT) vaccine was lower than in 1980. Among nonwhite infants, the proportion receiving at least one dose of polio vaccine fell by more than 20 percent, while the proportion receiving at least one dose of DPT also fell sharply. Among two-year-olds, the polio, measles, rubella, mumps, and DPT immunization rates all eroded.

Progress Toward Meeting the Surgeon General's Maternal and Child Health Objectives for 1990

As the year 1990 approaches, it is evident that the rate of progress in improving maternal and child health has been so slow that many of the child health objectives established as goals for that year by the U.S. Surgeon General in 1979, and reaffirmed by the Reagan Administration in 1984, will not be met. Based on the trends in recent years, the objectives will not be met for decades in many cases (and in one case, centuries) unless the pace of progress is improved. In other cases, if recent trends continue the objective never will be reached because the nation is moving in the wrong direction. When established in 1979, these modest objectives were considered achievable based on trends during that decade, but because of the dramatic slowdown of the 1980s many objectives are no longer within reach.

Goal: The national infant mortality rate should be reduced to no more than 9 deaths per 1,000 live births, with no county or racial or ethnic subgroup having a rate in excess of 12 deaths per 1,000 live births.

Based on the 1978-1986 national rate of progress, CDF projects that the United States will meet the overall goal of 9 deaths per 1,000 live births by 1990. The CDC project, however, based on 1981-1985 trends, that this objective will not be met.[9] The goal of no more than 12 deaths per 1,000 live births for black children will not be met until 1996 at the earliest.

Goal: Low-birthweight births should constitute no more than 5 percent of all births, with no county or racial or ethnic subgroup having a proportion in excess of 9 percent.

Based on the 1978-1986 rate of progress, the objective for all infants will not be met until the year 2032. For black infants, the objective will not be met until the year 2056.

Goal: Ninety percent of all pregnant women should begin prenatal care within the first three months of pregnancy.

Based upon the 1978-1986 rate of progress, the nation will not meet this goal until the year 2094. In the case of black women the goal will not be met until the year 2153.

Goal: Ninety percent of all two-year-old children should have completed the basic immunization series for measles, mumps, rubella, polio, diphtheria, pertussis, and tetanus.

Between 1980 and 1985, the proportion of two-year-olds adequately immunized against these preventable childhood diseases dropped. If these trends are not reversed, the Surgeon General's goal never will be met.

Goal: Virtually all women and infants should be served at levels appropriate to their need through a regionalized system of primary, secondary, and tertiary care for prenatal, maternal, and perinatal health services.

Goal: All women who give birth should have appropriately attended deliveries.

Goal: All infants should be able to participate in primary health care that includes well-child care, growth and developmental assessment, immunization, screening, diagnosis, and treatment of conditions requiring services, and other appropriate counseling.

These three objectives are related to medical care access and reflect the Surgeon General's understanding that maternal and child health status cannot improve without universal access to a broad range of primary, preventive, and remedial health services. However, the erosion in employer-provided health insurance benefits, combined with insufficient Medicaid expansions and declining real dollar expenditure levels for publicly funded health programs for the uninsured mean that the nation is moving away from, not toward, these goals.

Surgeon General's 1990 Goals
Fact Sheet for the Nation

	1986 Rate	1990 Goal	Will Meet 1990 Goal? Yes	No
Infant mortality[1]				
Total	10.4	9.0	✓	
White	8.9	12.0	✓	
Black	18.0	12.0		✓
Nonwhite	15.7	12.0		✓
Neonatal mortality[1]				
Total	6.7	6.0	✓	
Postneonatal mortality[1]				
Total	3.6	2.5		✓
Low birthweight				
Total	6.8%	5.0%		✓
White	5.6%	9.0%	✓	
Black	12.5%	9.0%		✓
Nonwhite	11.2%	9.0%		✓
Early prenatal care				
Total	75.9%	90.0%		✓
White	79.2%	90.0%		✓
Black	61.6%	90.0%		✓
Nonwhite	63.7%	90.0%		✓
Polio immunization for two-year-olds[2]				
Total	76.7%	90.0%		✓
White	79.5%	90.0%		✓
Nonwhite	56.5%	90.0%		✓

[1]Rates are per 1,000 live births.

[2]The same goal has been established for mumps, rubella, measles, diphtheria, tetanus, and pertussis. These will not be met.

14. Low-income children are more than three times as likely as other children never to have received a preventive health exam. More than 20 percent of the nation's poorest children had no physician contact in 1986, compared with one in seven children generally. In 1986 black children were reported as one-third more likely than white children to have had no physician contact, while black children who did use health services used them at half the rate of white children. In 1986 the poorest children were about half as likely as the most affluent children to have seen a dentist by age five, although all children should see a dentist at least by age three.

15. Programs designed to promote access to care for uninsured or publicly insured children are increasingly inadequate. Medicaid reaches only one-half of all poor children. Federal grants to state health agencies under the Title V program are so inadequate that more than half of all states are unable to offer maternity services on a statewide basis. No state offers comprehensive primary pediatric services on a statewide basis. While significant but modest improvements in key maternal and child health programs have been enacted by Congress and the states beginning with the 1984 Deficit Reduction Act, these expansions have been unable to keep pace with the widespread loss of private insurance coverage or to offset erosion in public coverage for poor families, especially for older children, as a result of inadequate public investment. The time is at hand for establishing a decent national floor of health protection for every low-income mother and child.

What Must Be Done

To prevent further erosion in health status and access to prenatal care, preventive health coverage for every uninsured low-income pregnant woman and child must be provided immediately under Medicaid.

Between now and the year 2000 the nation will spend approximately $6 billion in first-year costs alone to care for infants born at low birthweight whose adverse outcomes could have been prevented through adequate care prior to birth. We will spend billions more caring for these severely disabled infants as they grow up and require services over a lifetime. The diminished productivity of children left disabled by preventable causes—disproportionately minority children—will cost the United States tens of billions of dollars.

If we were to invest the same $6 billion in programs of proven effectiveness, in 1990 we could:

- Furnish Medicaid to all poor and near-poor pregnant women and children younger than eighteen (with family incomes below 200 percent of the federal poverty level).
- Place a community health center in every community that needs one.
- Deploy the needed medical and health professionals to underserved areas.
- Immunize our children.
- And furnish WIC benefits to all women and children in need of them.

The Ten Worst States On:

Infant Mortality, All Races
District of Columbia
South Dakota
Alabama
South Carolina
Georgia
Mississippi
Illinois
Louisiana
Maryland
North Carolina

Infant Mortality, Black
District of Columbia
Michigan
Illinois
Indiana
Alabama
Pennsylvania
Tennessee
Missouri
New Jersey
Massachusetts

Neonatal Mortality, All Races
District of Columbia
Alabama
Delaware
South Carolina
Georgia
Maryland
Illinois
Michigan
Louisiana
Mississippi

Postneonatal Mortality, All Races
South Dakota
Wyoming
District of Columbia
Oregon
Mississippi
Arkansas
Idaho
Alaska
South Carolina
Washington

Low Birthweight, All Races
District of Columbia
Mississippi
Louisiana
South Carolina
Georgia
Alabama
Tennessee
North Carolina
Colorado
Maryland

Low Birthweight, Black
Colorado
District of Columbia
Illinois
Nevada
Michigan
Pennsylvania
Minnesota
Connecticut
Louisiana
Florida

Babies Born to Women Receiving Early Prenatal Care, All Races
New Mexico
District of Columbia
Texas
South Carolina
Florida
Arkansas
West Virginia
Oklahoma
Arizona
New York

Babies Born to Women Receiving Early Prenatal Care, Black
Florida
New York
New Mexico
Pennsylvania
Arkansas
South Carolina
West Virginia
Montana
District of Columbia
Texas

Babies Born to Women Receiving Adequate Prenatal Care, All Races
District of Columbia
New Mexico
South Carolina
Texas
New York
Vermont
Arkansas
West Virginia
Florida
Arizona

Babies Born to Women Receiving Late or No Prenatal Care, All Races
New Mexico
Texas
District of Columbia
New York
Florida
Arizona
South Carolina
Oklahoma
Arkansas
West Virginia

Babies Born to Women Receiving Late or No Prenatal Care, Black
New York
Pennsylvania
New Mexico
West Virginia
Florida
Texas
Oklahoma
Nevada
South Carolina
District of Columbia

Babies Born to Women Receiving Inadequate Prenatal Care, All Races
District of Columbia
Texas
New Mexico
New York
Florida
South Carolina
Arizona
Oklahoma
Arkansas
Nevada

Births to Teens, All Races
Mississippi
Arkansas
Kentucky
Alabama
West Virginia
District of Columbia
Georgia
Tennessee
Louisiana
South Carolina

Births to Teens, White
West Virginia
Kentucky
Arkansas
New Mexico
Tennessee
Mississippi
Texas
Oklahoma
Alabama
Georgia

Births to Teens, Black
Arkansas
Wisconsin
Mississippi
Indiana
Illinois
Missouri
Delaware
Tennessee
Kentucky
Alabama

Part One:

The Health Status of Mothers, Infants, and Children

Most American children are healthy, although a significant number are not. The nation has failed to do all it can to keep its children healthy. Particularly during the 1980s, this country has slipped badly in its efforts to reduce low birthweight and infant mortality and increase prenatal care utilization and immunizations. Poor children in particular are exposed to a wide range of health threats and many are without either adequate health insurance or a source of affordable health care.

Poverty is the single greatest killer and disabler of children. Its impact can be measured in many ways. Poor mothers, both before and during pregnancy, receive less preventive and remedial care and face heightened health risks that increase the risk of low birthweight, infant mortality, and maternal mortality. Poor children are twice as likely to be born too soon or too small and to die in infancy. They are three to seven times as likely to die in childhood and their greater risk of death arises solely from preventable causes. They are more likely to be left disabled for life by chronic illnesses or conditions that might have been prevented or ameliorated through early and comprehensive maternity or pediatric health care.

Maternal and Infant Health—National Findings

Infant Mortality

In 1986 the slowing pace of infant mortality improvements that has prevailed in this country during the 1980s continued. The black infant mortality rate did not improve at all, for the second year in a row. The mortality "gap" between black and white infants in 1986 stood at its widest point since infant mortality data were first reported by race.

- Of the 3,756,547 infants born in 1986, 38,891 died before reaching their first birthday (Table 1.1).
- The 1986 overall infant mortality rate for the nation was 10.4 deaths per 1,000 live births. For white infants the rate was 8.9; for black infants, 18.0; and for all nonwhite infants, 15.7.
- In 1986 black children were 2.02 times more likely than white children to die before reaching one year of age. A black-white infant mortality gap this wide has not been observed since 1940, when infant mortality data were first reported by race (Table 4.1).
- For the second year in a row, the black infant mortality rate failed to show any statistically significant decline. Not since the period preceding the establishment and expansion in the mid-1960s of key publicly financed health programs, such as Medicaid, Community and Migrant Health Centers, the Title V Maternal and Child Health program, childhood immunizations, the Special Supplemental

TABLE 1.1

United States Fact Sheet, 1986

	White	Nonwhite		Total
		Black	Total	
Births				
To All Women	2,970,439	621,221	786,108	3,756,547
To women age 19 and under	315,335	141,606	156,746	472,081
To women under age 15	4,007	5,877	6,169	10,176
Teen Births				
As percentage of all births				
To women age 19 and under	10.6%	22.8%	19.9%	12.6%
To women under age 15	0.1%	0.9%	0.8%	0.3%
Low-Birthweight Births				
Percentage of births that were low birthweight:				
To all women	5.6%	12.5%	11.2%	6.8%
To women age 19 and under	7.7%	13.3%	12.7%	9.4%
Percentage of all low-birthweight births:				
To women age 19 and under	14.4%	24.1%	22.6%	17.3%
Prenatal Care				
Percentage of Babies Born to Women Who:				
Began prenatal care in the first trimester				
All women	79.2%	61.6%	63.7%	75.9%
Women age 19 and under	55.9%	46.8%	47.1%	53.0%
Began prenatal care in the third trimester or not at all				
All women	5.0%	10.6%	9.9%	6.0%
Women age 19 and under	11.6%	15.0%	15.0%	12.7%
Received adequate prenatal care				
All women	72.6%	50.6%	51.8%	68.4%
Received inadequate prenatal care				
All women	6.3%	15.3%	14.7%	8.0%
Infant Mortality				
Infant Deaths per 1,000 Live Births				
Total infant deaths	8.9	18.0	15.7	10.4
Neonatal deaths	5.8	11.7	10.1	6.7
Postneonatal deaths	3.1	6.3	5.6	3.6

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

Food Program for Women, Infants, and Children (WIC), and the Title X Family Planning program, has there been such a sustained lack of progress in the national black infant mortality rate.

- The continued stagnation in black infant mortality was masked by a decline in the overall infant mortality rate for the nation, from 10.6 deaths per 1,000 live births in 1985 to 10.4 in 1986. However, between 1984 and 1986 the overall national rate of decline in infant mortality was only 4 percent (from 10.8 in 1984 to 10.4 in 1986). This two-year decline in the overall infant mortality rate represents the smallest two-year improvement in infant mortality since the 1963 to 1965 period.
- During the 1970s, the national infant mortality rate declined by an average of 3.70 percent per year. Since 1980 the decline in the U.S. infant mortality rate has slowed to 2.91 percent per year. For black infants, progress has slowed even further. During the 1970s, black infant mortality declined by an average of 3.44 percent per year, compared with 2.65 percent per year since 1980 (Table 1.2 and Figure 1.1).

Neonatal Mortality, Low Birthweight, and Prematurity

During the 1980s there was no sustained change in the percentage of babies born at low birthweight. Moreover, the percentage of babies born at very low birthweight and prematurely increased during this time period. By 1986 the gap between black and white low-birthweight births stood at its highest point since 1969.

TABLE 1.2

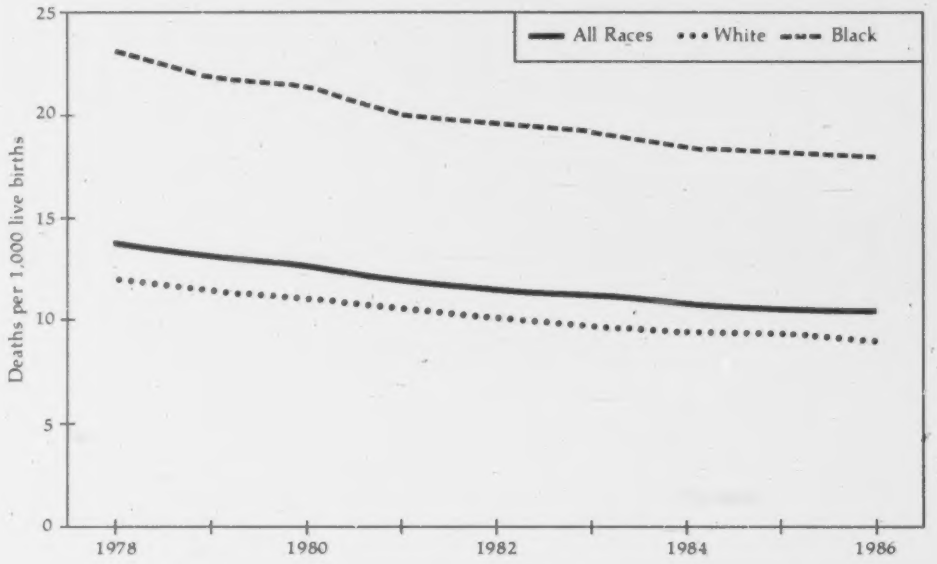
Maternal and Child Health Indicators and Percent Change per Year, All Races, U.S., Selected Years

	Rate per 1,000			Percent Change per Year	
	1970	1980	1986	1970-1980	1980-1986
Infant Mortality	20.0	12.6	10.4	-3.70%	-2.91%
Neonatal Mortality	15.1	8.5	6.7	-4.37%	-3.53%
Perinatal Mortality I	23.2	13.3	10.4	-4.27%	-3.63%
Perinatal Mortality II	29.3	17.7	14.4	-3.96%	-3.11%
Postneonatal Mortality	4.9	4.1	3.6	-1.63%	-2.03%
	Percent			Percent Change per Year	
Early Prenatal Care	67.9%	76.3%	75.9%	1.24%	-0.09%
Late or No Prenatal Care	7.9%	5.1%	6.0%	-3.54%	2.94%
Low Birthweight	7.9%	6.8%	6.8%	-1.39%	0.00%

Note: Perinatal Mortality I refers to fetal deaths of 28 weeks or more gestation and infant deaths less than 7 days after birth. Perinatal Mortality II refers to fetal deaths of 20 weeks or more gestation and infant deaths less than 28 days after birth.

FIGURE 1.1

Infant Mortality Rates, by Race, U.S., 1978-1986



SOURCE: National Center for Health Statistics.

- Between 1985 and 1986, neonatal mortality rates (deaths occurring during the first twenty-seven days of life) declined by 4 percent for all races, by 5 percent among white infants, by 3 percent among black infants, and by 2 percent among all nonwhite infants (Table 4.2 and Figure 1.2).

Between 1985 and 1986, however, there was no improvement in the proportion of infants born at low birthweight. There were even small increases in the proportion of low-birthweight births among black and all nonwhite infants (from 12.4 to 12.5 percent of all black infants, and from 11.1 to 11.2 percent of all nonwhite infants) (Table 4.6).

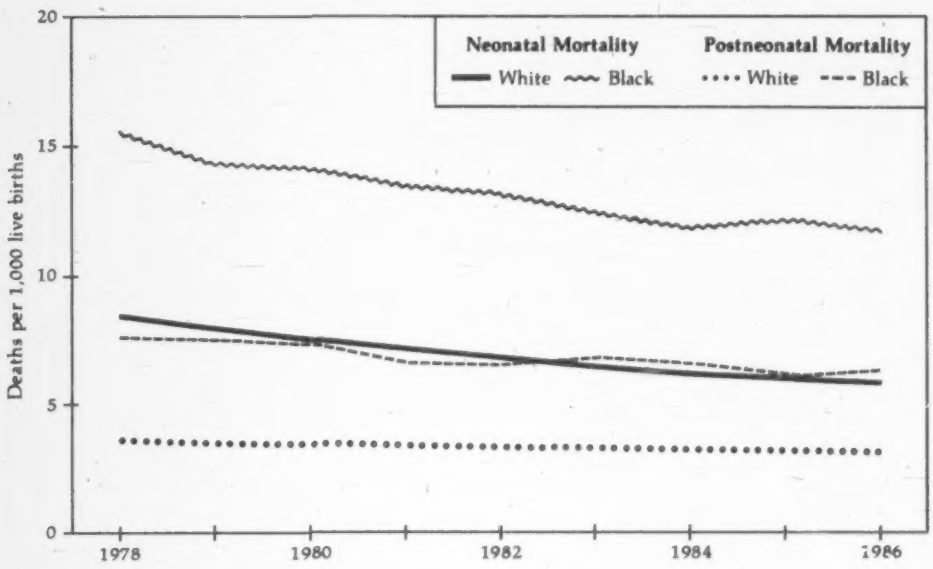
- Stagnation in the incidence of low birthweight among black infants coupled with slight improvements in the incidence among white infants has led to a widening of the black-white low-birthweight gap during the 1980s. In 1969, the first year for which low-birthweight data for black infants were available, the black-white ratio was 2.01-to-1. By 1979 it had grown to 2.17-to-1. In 1986 the ratio stood at 2.23-to-1.

Three-quarters of all neonatal deaths result from low birthweight. Thus, any decline in the national neonatal mortality rate in 1986 presumably was not achieved because more infants were born healthy. Rather, more fragile infants survived the newborn period with the aid of expensive hospital technology.

- While the neonatal mortality rate declined significantly between 1985 and 1986, the overall stagnation in the proportion of low-birthweight births during the 1980s contributed to a general slowdown in the rate of improvement in neonatal mortality. Between 1970 and 1980, low-birthweight births declined by an average of 1.39 percent per year, and neonatal mortality declined by 4.37

FIGURE 1.2

Neonatal and Postneonatal Mortality Rates, by Race, 1978-1986



SOURCE: National Center for Health Statistics.

percent annually (Table 1.2). However, during the 1980s, when low birthweight failed to decline, the neonatal mortality rate declined by only 3.53 percent per year.

- In 1986, 1.2 percent of babies were born at very low birthweight (less than 3.5 pounds). As a proportion of all births, very low-birthweight births have increased steadily since 1979 (Table 4.7).
- The percentage of infants born prematurely (prior to thirty-seven completed weeks of gestation) increased in 1986, the fourth such increase during the 1981-1986 period. In 1986, one in ten births was preterm. While black infants continue to be more than twice as likely as white infants to be born prematurely (17.7 percent versus 8.4 percent), the incidence of prematurity is on the increase among both racial groups.

Perinatal Mortality

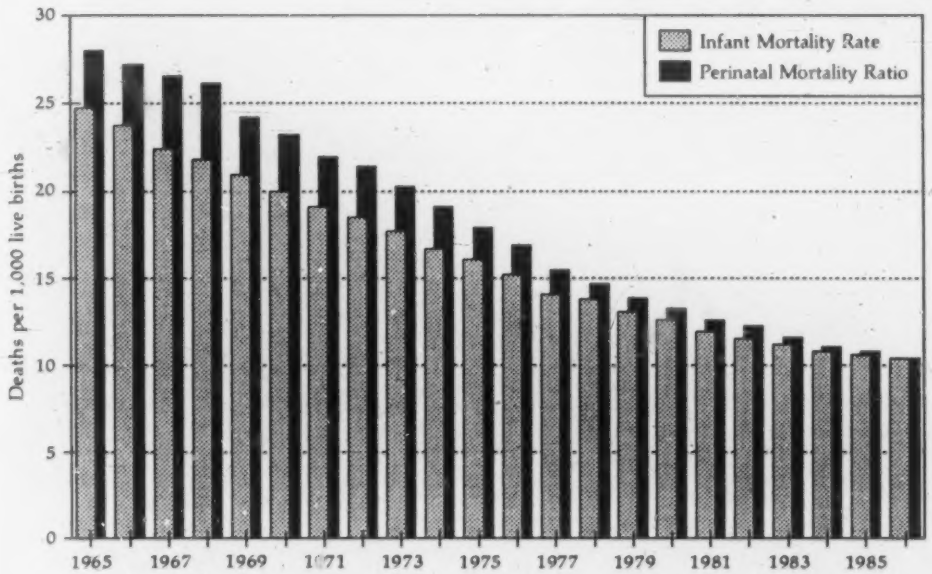
Some observers speculate that the nation's failure to make more progress in lowering infant mortality and in reducing the incidence of low birthweight is not a reflection of actual health trends. Instead, they argue that the slowdown is the result of changes in reporting practices.[1] These analysts believe deaths that previously would have been classified as fetal deaths (that is, not living at the time of birth) are increasingly being classified as live births and, subsequently, as infant deaths. Such a change in reporting would artificially increase the infant mortality rate and the proportion of infants born at low birthweight. Others have argued that changed reporting practices are only one factor in the slowing of progress in infant mortality.[2]

The perinatal mortality rate measures deaths that occur from a point late in pregnancy to shortly after birth. Two different perinatal mortality ratios are shown on Table 4.4. One reflects the number of deaths from the twenty-eighth week of pregnancy through the seventh day of life. The other reflects the number of deaths from the twentieth week of pregnancy through the entire neonatal period (up to twenty-eight days of life).

However, the perinatal mortality ratios have shown a declining pace of improvement in recent years similar to that for infant mortality and neonatal mortality. The average annual percent decline for infant mortality, neonatal mortality, and the perinatal mortality ratio which includes all neonatal deaths (Definition II) was about 20 percent less in the 1980s than the 1970s (Table 1.2). It is likely that a variety of factors contributed to these slowdowns.

FIGURE 1.3

Infant and Perinatal Mortality, U.S., 1965-1986



Note: The infant mortality rate and perinatal mortality ratio are per 1,000 live births. See Technical Notes for further definition.

SOURCE: National Center for Health Statistics.

Postneonatal Mortality

While neonatal mortality rates declined for all racial groups in 1986, postneonatal mortality (deaths from twenty-eight days to one year of life) did not.

- In 1986 the overall postneonatal mortality rate declined slightly, by 3 percent. However, black and all nonwhite postneonatal mortality rates increased slightly, but not significantly. The rates rose by 3 percent for black infants and by 2 percent for all nonwhite infants (Table 4.3). For black infants, this slight increase follows a significant increase in postneonatal mortality between 1984 and 1985, after seventeen years of improvement or stability in the rate.

These increases may be the result in part of deaths involving unhealthy infants who survived the first twenty-seven days of life but subsequently died in the postneonatal period. Another cause, the National Center for Health Statistics reports, is an increase in accidents, the third leading cause of postneonatal death[3] (Table 1.5).

Causes of Death

Black infants in the United States not only faced a greater chance of death than white infants in 1986, but also were far more likely to die from preventable causes.

- Death rates among black and white infants resulting from congenital anomalies (largely nonpreventable birth defects) were virtually identical (although aggregate data for 1981-1986 show a lower rate of congenital anomalies among black infants than among whites).[4] However, for many causes considered preventable through adequate maternity and infant health care, black infants were substantially more likely to die than white infants. Black infants were nearly four times more likely to die as a result of prematurity and low birthweight, three times more likely to die from homicide, two and a half times more likely to die of pneumonia or influenza, and two times more likely to die as a result of newborn and maternal complications, newborn infections, and accidents (Table 1.3).

TABLE 1.3

Infant Mortality Rates[1] for 15 of the Leading Causes of Infant Death, by Race, U.S., 1986

	All Races	White	Nonwhite		Ratio of Black to White
			Black	Total	
All Causes	1,035.3	894.3	1,803.5	1,568.1	2.0
1. Congenital anomalies	219.5	219.5	232.1	219.4	1.1
2. Sudden infant death syndrome	140.5	123.0	233.6	206.6	1.9
3. Respiratory distress syndrome	90.6	81.5	144.2	124.8	1.8
4. Disorders relating to short gestation and low birthweight	86.4	60.3	225.4	185.1	3.7
5. Maternal complications of pregnancy	36.1	31.9	61.0	51.8	1.9
6. Intrauterine hypoxia and birth asphyxia	26.2	22.2	47.6	41.3	2.1
7. Infections specific to the perinatal period	24.4	20.7	44.1	38.7	2.1
8. Complications of placenta, cord, or membranes	22.3	19.6	37.8	32.4	1.9
9. Accidents and adverse effects	24.2	20.3	43.1	39.1	2.1
10. Pneumonia and influenza	17.6	14.2	35.9	30.8	2.5
11. Neonatal hemorrhage	9.2	7.4	18.8	16.2	2.5
12. Septicemia	8.0	6.4	16.7	14.4	2.6
13. Homicide	7.4	5.4	18.2	15.0	3.4
14. Birth trauma	7.1	6.3	12.1	9.9	1.9
15. Meningitis	5.9	4.5	11.9	10.8	2.6

[1]Deaths per 100,000 live births.

SOURCE: National Center for Health Statistics.

Maternal Mortality

The leading causes of maternal mortality are preventable or probably preventable. Black and all nonwhite women were far more likely to die of pregnancy-related causes than white women in 1986.

- In 1986 black and all nonwhite mothers were substantially more likely (3.8 and 3.3 times, respectively) than white mothers to die of pregnancy-related causes. The maternal mortality rates for black and all nonwhite women were 18.8 and 16.0 deaths per 100,000 live births, respectively, compared with 4.9 for white women.
- The four leading causes of maternal mortality in 1986 were: complications of the puerperium (conditions during the forty-two-day period following termination of pregnancy, such as infections, blood clots, and other problems related to healing following normal or Caesarean-section delivery); toxemia; ectopic pregnancy; and hemorrhage of pregnancy and childbirth (Table 1.6). All are considered preventable or probably preventable through routine medical care before pregnancy, early and continuous prenatal care, risk-appropriate delivery procedures, and routine care after birth.
- Ectopic pregnancy is one of the leading causes of maternal mortality. The Centers for Disease Control (CDC) report that the number of ectopic pregnancies increased steadily during the 1970s and 1980s.[5] From 1970, when surveillance for ectopic pregnancy began, to 1985, the rate per 1,000 live births increased more than four-fold, from 4.8 to 20.9 (Table 1.7). Ectopic pregnancies are associated with (among other causes) Pelvic Inflammatory Disease (PID), which in turn results from sexually transmitted diseases, especially gonorrhea

TABLE 1.4

Neonatal Mortality for the 15 Leading Causes of Death, U.S., 1986

	Number	Rate[1]	Percent of Total Deaths
All Causes	25,212	671.1	100.0
1. Congenital anomalies	6,155	163.8	24.4
2. Disorders relating to short gestation and low birthweight	3,202	85.2	12.7
3. Respiratory distress syndrome	3,179	84.6	12.6
4. Maternal complications of pregnancy	1,344	35.8	5.3
5. Intrauterine hypoxia and birth asphyxia	909	24.2	3.6
6. Infections specific to the perinatal period	869	23.1	3.4
7. Complications of placenta, cord, or membranes	825	22.0	3.3
8. Sudden infant death syndrome	362	9.6	1.4
9. Neonatal hemorrhage	341	9.1	1.4
10. Birth trauma	256	6.8	1.0
11. Pneumonia and influenza	152	4.0	0.6
12. Maternal conditions that may be unrelated to present pregnancy	111	3.0	0.4
13. Accidents and adverse effects	89	2.4	0.4
14. Other complications of labor and delivery	71	1.9	0.3
15. Viral diseases	48	1.3	0.2

[1]Deaths per 100,000 live births.

SOURCE: National Center for Health Statistics.

TABLE 1.5

Postneonatal Mortality for the 15 Leading Causes of Death, U.S., 1986

	Number	Rate[1]	Percent of Total Deaths
All Causes	13,679	364.1	100.0
1. Sudden infant death syndrome	4,916	130.9	35.9
2. Congenital anomalies	2,089	55.6	15.3
3. Accidents and adverse effects	820	21.8	6.0
4. Pneumonia and influenza	511	13.6	3.7
5. Septicemia	302	8.0	2.2
6. Homicide	232	6.2	1.7
7. Respiratory distress syndrome	224	6.0	1.6
8. Meningitis	182	4.8	1.3
9. Bronchitis	95	2.5	0.7
10. Cancer	85	2.3	0.6
11. Viral diseases	82	2.2	0.6
12. Intrauterine hypoxia and birth asphyxia	74	2.0	0.5
13. Hernia and intestinal obstruction without hernia	65	1.7	0.5
14. Meningococcal infection	60	1.6	0.4
15. Gastritis, duodenitis, and noninfective enteritis and colitis	58	1.5	0.4

[1]Deaths per 100,000 live births

SOURCE: National Center for Health Statistics

TABLE 1.6

The Four Leading Causes of Maternal Mortality[1], by Race, 1986

Cause of Death	Total	White	Black	Other Nonwhite	Ratio of Black to White
Complications of the puerperium	2.0	1.4	5.0	4.2	3.6
Toxemia of pregnancy	1.1	0.6	3.4	2.7	5.7
Ectopic pregnancy	1.0	0.5	3.1	2.5	6.2
Hemorrhage of pregnancy and childbirth	0.7	0.5	1.4	1.4	2.8

[1]Deaths per 100,000 live births.

SOURCE: National Center for Health Statistics.

TABLE 1.7

Estimated Numbers and Rates of Ectopic Pregnancies, U.S., 1970–1985

Year	Number	Rates for: Women Ages 15 to 44[1]	Rates for: Live Births[2]
1970	17,800	4.2	4.8
1971	19,300	4.4	5.4
1972	24,500	5.5	7.5
1973	25,600	5.6	8.2
1974	26,400	5.7	8.4
1975	30,500	6.5	9.8
1976	34,500	7.2	11.0
1977	40,700	8.3	12.3
1978	42,400	8.5	12.8
1979	49,900	9.9	14.3
1980	52,200	9.9	14.5
1981	68,000	12.7	18.7
1982	61,800	11.5	17.0
1983	69,600	12.6	19.2
1984	75,400	13.6	20.6
1985	78,400	14.0	20.9

[1]Rate per 10,000 females.

[2]Rate per 1,000 live births.

SOURCE: Centers for Disease Control.

and chlamydia. The reported incidence of both PID and sexually transmitted diseases, especially gonorrhea, increased during the same period that ectopic pregnancies increased.[6]

Ectopic pregnancy rates are increasing among black and white women. While ectopic pregnancy rates are approximately 50 percent higher among black women, however, maternal mortality rates resulting from ectopic pregnancies are 600 percent greater among black women than among white women.[7]

International Findings

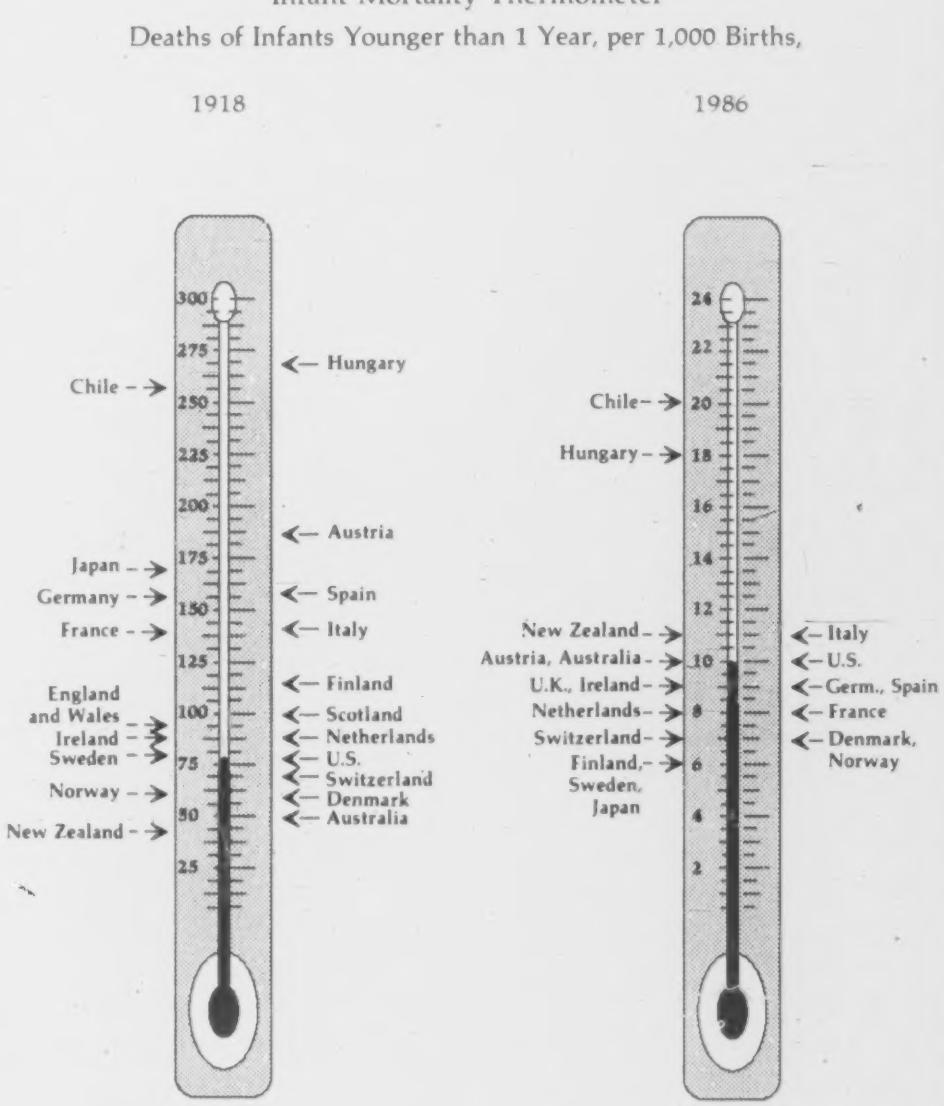
In 1986 the United States' infant mortality rate placed it eighteenth worldwide. The United States lagged behind such nations as Ireland, Japan, France, and Canada. When only the U.S. white infant mortality rate is compared with other countries' general rates, the United States ranked tenth, tied with Hong Kong, Spain, and Singapore, among others. When only the U.S. black infant mortality rate is compared with other countries' general rates, the United States ranked twenty-eighth, behind Greece, Cuba, Bulgaria, and Czechoslovakia, and tied with Poland, Hungary, Portugal, and Costa Rica (Table 1.8).

The United States' rank compared with other countries has deteriorated over time. In 1918 the United States ranked sixth among twenty countries selected for comparison by the Children's Bureau of the U.S. Department of Labor. By 1986 the U.S. rank was thirteenth among these same countries, behind Spain, Ireland, Japan, Germany, and France (Figure 1.4). Several of these countries, including Spain, Japan, and Germany, had infant mortality rates more than twice as high as the United States in 1918 but had lower rates in 1986.

FIGURE 1.4

Infant Mortality Thermometer

Deaths of Infants Younger than 1 Year, per 1,000 Births,



Source: Children's Bureau, U.S. Department of Labor, 1921

Source: UNICEF

• In 1918 the United States ranked sixth in infant mortality rates among selected countries. In 1986, among the same set of countries, the U.S. rank was thirteenth, behind Spain, Ireland, Japan, Germany, and France. Overall, the U.S. infant mortality rate ranked eighteenth worldwide in 1986.

TABLE 1.8

Infant Mortality Rates, Selected Countries, 1986

Rank	Country	Rate[1]
1	Japan	6
1	Finland	6
1	Sweden	6
4	Denmark	7
4	Switzerland	7
4	Norway	7
7	Netherlands	8
7	France	8
7	Canada	8
10	Hong Kong	9
10	Singapore	9
10	German Dem. Rep.	9
10	Belgium	9
10	Germany, Fed. Rep.	9
10	United Kingdom	9
10	Spain	9
10	Ireland	9
	U.S. (White)[2]	*9*
18	Austria	10
18	Australia	10
18	**United States**	**10**
21	Italy	11
21	New Zealand	11
23	Greece	12
24	Israel	14
24	Czechoslovakia	14
26	Cuba	15
26	Bulgaria	15
28	Poland	18
28	Hungary	18
28	Portugal	18
28	Costa Rica	18
	U.S. (Black)[2]	*18*

[1]Deaths per 1,000 live births.

[2]See Technical Notes regarding U.S. white and black rates.

SOURCE: UNICEF.

State Findings

State Infant Health Trends

The nation's infant health record is an average of the states' experience. Adverse trends and slowed progress nationally reflect a failure to make significant progress in reducing infant mortality in the states. Thus, it is not surprising that between 1985 and 1986, when the nation made very little progress in reducing infant mortality, a number of states experienced only a small decline or an actual increase in their infant mortality rates (Tables 4.11A-D). The CDC have concluded that even though a one-year rise in infant mortality rates may not indicate a trend, a major single-year increase merits intensive scrutiny in order to determine whether it is traceable to one or more preventable causes.[8]

- The overall infant mortality rate increased between 1985 and 1986 in fifteen jurisdictions: Alabama, the District of Columbia, Hawaii, Idaho, Illinois, Indiana, Minnesota, Missouri, Nebraska, Nevada, Ohio, Rhode Island, South Dakota, Vermont, and Wisconsin.
- White infant mortality increased during this period in fourteen jurisdictions: Arkansas, Hawaii, Idaho, Indiana, Louisiana, Maryland, Minnesota, Missouri, Nebraska, Ohio, Rhode Island, South Carolina, South Dakota, and Vermont.
- Black infant mortality rose in sixteen of thirty-three jurisdictions with measurable rates between 1985 and 1986: Alabama, Arizona, Arkansas, Colorado, the District of Columbia, Florida, Illinois, Indiana, Kansas, Minnesota, Mississippi, Missouri, New York, Ohio, Texas, and Washington.
- The infant mortality rate among all nonwhite infants increased in nineteen of forty jurisdictions with measurable rates: Alabama, Arkansas, Florida, Hawaii, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Nebraska, New Mexico, New York, Ohio, Oklahoma, South Dakota, Texas, Washington, and Wisconsin.

A number of states had especially troubling records during the 1978 to 1986 period.

- In Wisconsin the black infant mortality rate moved from being the nation's lowest in 1978 to among the highest in 1982. Since 1982 the rate has fluctuated, but by 1986 it still had not declined to the 1978 level.
- In Indiana very little progress was made between 1978 and 1986 in reducing the black infant mortality rate. The 1978 infant mortality rate was 23.4 deaths per 1,000 live births, compared with 21.5 in 1986. The average for this nine-year period was 20.8.
- The nation's black infant mortality "trouble spots" have not changed substantially over the years. In 1938-1940, southern states exhibited the greatest black infant mortality problems (Figure 1.5). By 1986 southern states remained among those with the highest black infant mortality rates (Figure 1.6). States with the highest black infant mortality rates in 1938-1940 and 1986 are Alabama, Louisiana, South Carolina, and Virginia. In contrast, while Mississippi had one of the nation's highest black infant mortality rates in 1986, it had among the lowest rates in 1938-1940.

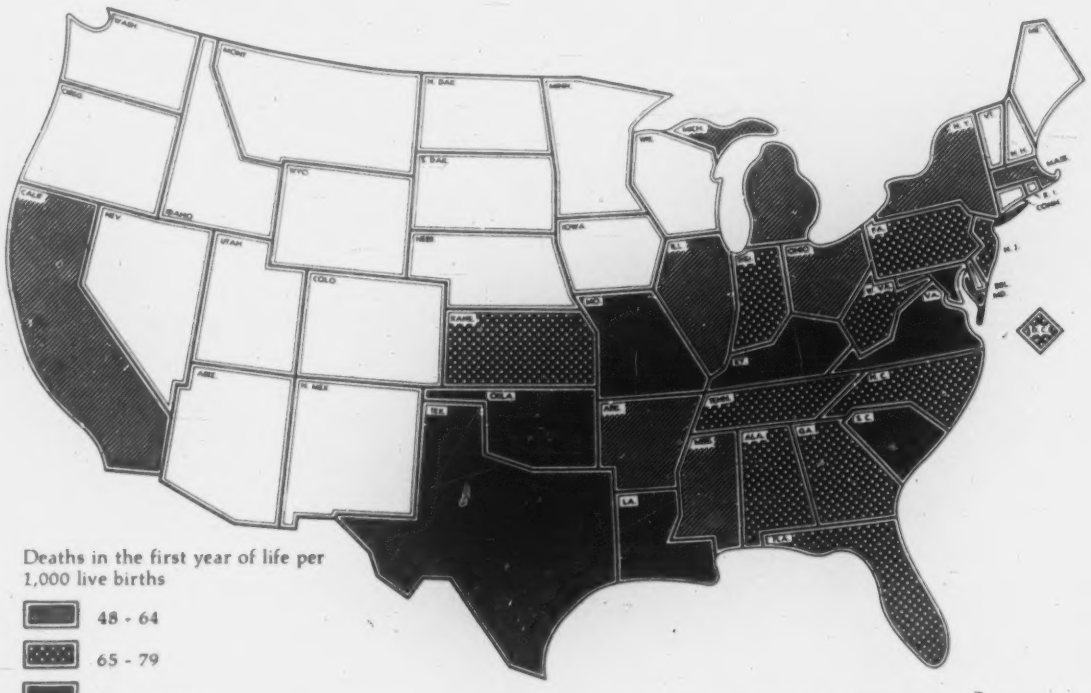
Infant Mortality, Neonatal Mortality, Postneonatal Mortality, and Low Birthweight

This edition of *The Health of America's Children* uses a new format to present state rankings on key maternal and infant health indicators. A series of tables ranking states on key indicators is presented together in order to provide readers with a better sense of the relationships among various maternal and infant health indicators.

- Several states exhibited extraordinary maternal and infant health problems in 1986. The black infant mortality rate (24 deaths per 1,000 births) in the District of Columbia in 1986 was a third higher than the national average and nearly twice as high as the black infant mortality rate in Kentucky, the state with the lowest such rate (Table 4.17C). Similarly, black neonatal mortality rates for the District of Columbia, Illinois, Indiana, and Michigan in 1986 were more than twice that of Arkansas.
- The most disturbing findings were for South Dakota, where infant mortality among all nonwhite infants stood at 27.5 deaths per 1,000 live births. This

FIGURE 1.5

Infant Mortality Rate in Each State, Black Infants; United States, 1938-40



Based on data from U.S. Bureau of the Census.

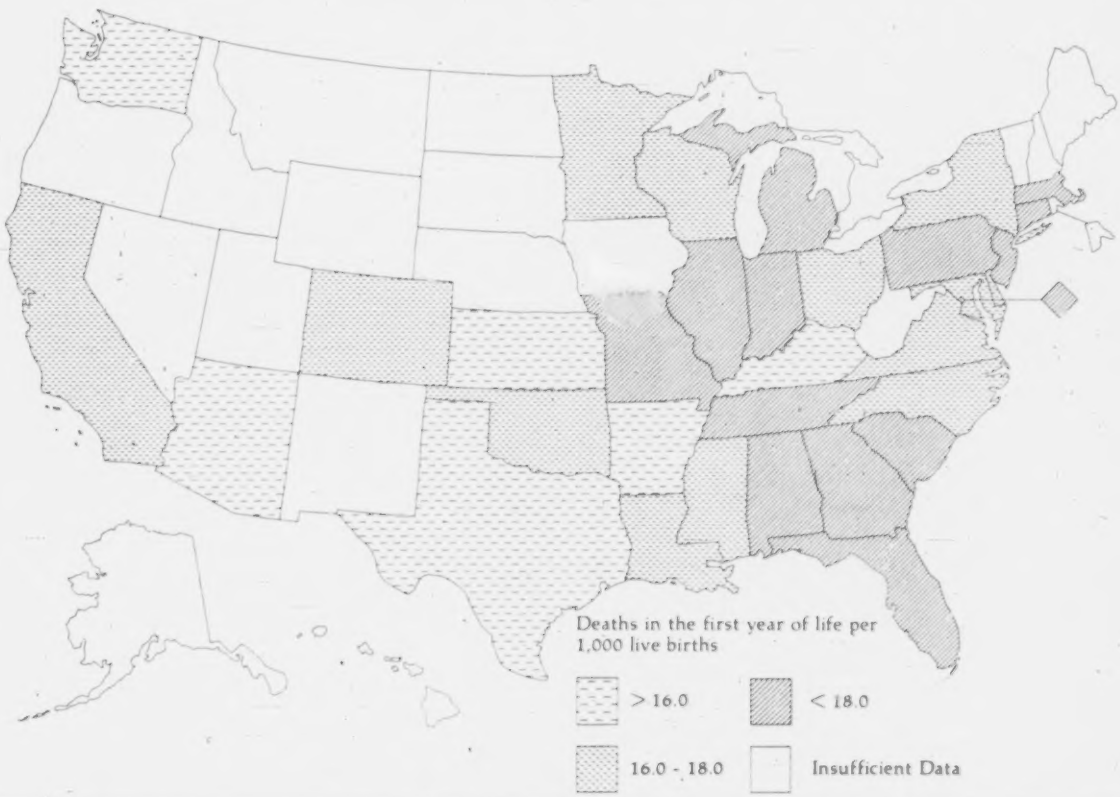
SOURCE: U.S. Department of Labor, Children's Bureau.

infant mortality rate was higher than the highest statewide black infant mortality rate and 1.8 times the national average for all nonwhite infants. It was far higher than South Dakota's all nonwhite rate in the years before 1986. South Dakota's 1986 all nonwhite postneonatal mortality rate of 15.5 deaths per 1,000 live births was nearly three times the national average. In 1986 a nonwhite baby born in South Dakota was more than five times as likely as a nonwhite infant born in Hawaii, and three times as likely as a nonwhite infant born in Oklahoma, to die during the postneonatal period. Although the Indian Health Service recently proclaimed dramatic health improvements for Native American infants,[9] these statistics from South Dakota (where more than 90 percent of all nonwhite infants are Native Americans) seriously undercut these claims.

- While the relative position of some states is fairly constant for infant mortality and its component parts (neonatal and postneonatal mortality), some states' positions shift dramatically from measurement to measurement. For example, North Dakota, whose overall infant mortality rate in 1986 placed it first nationally, fell to thirty-ninth place when only its postneonatal mortality rate is considered (Table 1.9A). Thus, while the state has achieved a low overall infant mortality rate relative to states with much greater neonatal mortality problems, it has a serious postneonatal mortality problem.

FIGURE 1.6

Infant Mortality Rates, By State, Black, 1986



The extent to which low overall infant mortality rates can mask serious postneonatal mortality rates also can be seen in Oregon, which had an overall infant mortality rate among the best one-third and ranked second best in neonatal mortality in 1986, but had the fourth worst postneonatal rate. Similarly, Kansas had the nation's seventh lowest white overall infant mortality rate in 1986, but its white postneonatal mortality rate was among the nation's ten worst (Table 1.9B).

- In the case of black infants, no state provides a clearer example of this phenomenon than Arkansas. In 1986 Arkansas had the fifth lowest statewide black infant mortality rate of the thirty-three states with measurable rates. The state's black neonatal mortality rate was the lowest in the country (Table 1.9C). However, the state's black postneonatal mortality rate, which placed it worst among twenty-five states with measurable rates, was 1.3 times greater than the national average. A black infant born in Arkansas in 1986 was nearly twice as likely to die during the postneonatal period as one born in Maryland. Since the proportion of black infants born at low birthweight in Arkansas was only slightly better than the national average that year (Table 4.20C), these wide swings in the state's rankings suggest that numerous at-risk, low-birthweight infants may have survived the first twenty-seven days of life only to die later in infancy.
- In some states, both neonatal mortality and postneonatal mortality posed

TABLE 1.9A

Mortality Rates in the First Year of Life and Low-Birthweight Births, All Races, 1986

State	Infant Mortality		Neonatal Mortality		Postneonatal Mortality		Low Birthweight	
	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
Alabama	13.3	49	9.1	50	4.2	36	8.0	46
Alaska	10.8	33	6.2	22	4.5	42	4.6	1
Arizona	9.4	16	5.5	9	3.9	29	6.2	18
Arkansas	10.3	28	5.7	16	4.6	44	7.6	41
California	8.9	8	5.6	13	3.3	10	6.0	17
Colorado	8.6	5	5.3	6	3.3	9	7.7	43
Connecticut	9.1	9	6.8	30	2.3	1	6.6	23
Delaware	11.5	41	8.8	49	—	—	7.4	37
District of Columbia	21.1	51	16.1	51	5.0	47	12.2	51
Florida	11.0	35	7.3	36	3.7	23	7.6	40
Georgia	12.5	47	8.5	47	4.0	30	8.1	47
Hawaii	9.3	14	6.3	23	3.1	5	6.9	29
Idaho	11.3	39	6.7	29	4.6	43	5.2	7
Illinois	12.1	45	8.1	45	4.0	31	7.4	39
Indiana	11.3	38	7.5	40	3.8	24	6.4	20
Iowa	8.5	3	5.6	11	2.9	4	5.2	10
Kansas	8.9	7	5.1	5	3.8	26	6.2	19
Kentucky	9.8	23	6.4	24	3.5	14	7.1	35
Louisiana	11.9	44	7.8	43	4.1	35	8.6	49
Maine	8.8	6	5.6	14	3.2	6	5.1	5
Maryland	11.7	43	8.3	46	3.5	13	7.7	42
Massachusetts	8.5	2	5.8	18	2.6	2	5.8	15
Michigan	11.4	40	7.8	44	3.5	17	6.9	31
Minnesota	9.2	12	5.5	10	3.7	22	5.1	3
Mississippi	12.4	46	7.7	42	4.6	45	8.7	50
Missouri	10.7	32	6.8	32	3.9	28	6.8	25
Montana	9.6	20	5.6	12	4.0	32	5.9	16
Nebraska	10.1	25	6.6	28	3.5	15	5.5	14
Nevada	9.1	11	4.9	3	4.2	38	7.4	38
New Hampshire	9.1	10	5.9	19	3.2	8	5.2	9
New Jersey	9.8	21	6.6	26	3.2	7	6.8	26
New Mexico	9.5	19	5.4	8	4.1	34	7.1	34
New York	10.7	31	7.3	37	3.4	11	7.3	36
North Carolina	11.5	42	7.7	41	3.9	27	7.9	44
North Dakota	8.4	1	4.1	1	4.3	39	4.9	2
Ohio	10.6	30	6.9	33	3.8	25	6.7	24
Oklahoma	10.4	29	6.2	21	4.2	37	6.5	22
Oregon	9.4	17	4.7	2	4.7	46	5.1	4
Pennsylvania	10.2	26	6.8	31	3.4	12	6.9	30
Rhode Island	9.4	15	6.5	25	2.9	3	6.4	21
South Carolina	13.2	48	8.8	48	4.4	41	8.6	48
South Dakota	13.3	50	7.1	35	6.2	49	5.3	11
Tennessee	11.0	36	6.9	34	4.1	33	7.9	45
Texas	9.5	18	6.0	20	3.5	18	6.8	28
Utah	8.6	4	5.1	4	3.5	16	5.4	13
Vermont	10.0	24	7.5	39	—	—	5.2	6
Virginia	11.1	37	7.5	38	3.6	20	7.0	33
Washington	9.8	22	5.4	7	4.4	40	5.2	8
West Virginia	10.2	27	6.6	27	3.6	21	7.0	32
Wisconsin	9.2	13	5.7	15	3.6	19	5.4	12
Wyoming	10.9	34	5.8	17	5.1	48	6.8	27
United States	10.4	—	6.7	—	3.6	—	6.8	—

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

TABLE 1.9B

Mortality Rates in the First Year of Life and Low-Birthweight Births, White, 1986

State	Infant Mortality		Neonatal Mortality		Postneonatal Mortality		Low Birthweight	
	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
Alabama	9.8	43	6.9	46	2.9	11	6.0	39
Alaska	10.1	46	6.0	26	4.2	41	3.9	1
Arizona	9.0	27	5.4	12	3.6	38	6.0	41
Arkansas	8.9	21	5.3	8	3.6	37	6.3	44
California	8.6	10	5.4	14	3.1	20	5.2	15
Colorado	8.3	5	5.1	6	3.2	22	7.3	51
Connecticut	7.8	3	5.9	23	2.0	1	5.6	25
Delaware	9.6	40	7.4	49	—	—	6.0	38
District of Columbia	—	—	—	—	—	—	5.0	7
Florida	8.8	18	5.9	25	2.8	7	6.0	35
Georgia	9.4	35	6.5	41	2.9	12	6.0	36
Hawaii	8.6	14	—	—	—	—	5.4	20
Idaho	11.3	50	6.6	44	4.7	46	5.1	12
Illinois	9.3	34	6.4	40	2.9	13	5.5	22
Indiana	10.1	45	6.7	45	3.4	32	5.7	28
Iowa	8.3	6	5.5	16	2.9	8	5.0	8
Kansas	8.4	7	4.8	3	3.6	39	5.6	23
Kentucky	9.6	38	6.3	39	3.3	27	6.5	46
Louisiana	8.7	15	5.9	24	2.7	5	5.8	31
Maine	9.0	24	5.8	21	3.2	24	5.1	10
Maryland	9.5	37	6.5	42	3.0	15	5.5	21
Massachusetts	7.7	1	5.3	10	2.4	3	5.3	16
Michigan	9.0	26	6.0	30	3.0	14	5.4	19
Minnesota	8.9	20	5.5	18	3.3	29	4.7	3
Mississippi	9.0	22	6.1	31	2.9	9	6.0	40
Missouri	9.3	32	6.0	27	3.3	28	5.7	27
Montana	8.7	17	5.3	11	3.4	31	5.9	34
Nebraska	9.2	31	6.2	37	3.1	18	5.2	14
Nevada	8.6	9	4.9	4	3.6	36	6.6	47
New Hampshire	9.1	28	5.8	22	3.3	26	5.2	13
New Jersey	7.8	2	5.4	15	2.4	2	5.4	18
New Mexico	9.0	25	5.5	17	3.5	35	7.2	50
New York	9.2	29	6.5	43	2.7	4	5.8	30
North Carolina	9.2	30	6.2	38	3.0	16	6.1	43
North Dakota	8.3	4	4.1	1	4.2	42	4.7	4
Ohio	9.5	36	6.1	34	3.3	30	5.7	29
Oklahoma	10.1	44	6.0	29	4.1	40	5.9	33
Oregon	9.3	33	4.6	2	4.8	47	5.0	9
Pennsylvania	8.6	12	5.7	20	2.9	10	5.6	26
Rhode Island	8.8	19	6.1	32	2.8	6	6.0	37
South Carolina	10.1	47	6.9	47	3.2	23	6.1	42
South Dakota	10.4	48	6.1	35	4.3	43	4.9	6
Tennessee	8.7	16	5.6	19	3.1	19	6.5	45
Texas	8.6	11	5.4	13	3.2	21	5.9	32
Utah	8.6	13	5.1	5	3.5	34	5.3	17
Vermont	9.7	41	7.3	48	—	—	5.1	11
Virginia	9.0	23	6.0	28	3.0	17	5.6	24
Washington	9.8	42	5.3	9	4.5	44	4.8	5
West Virginia	9.6	39	6.2	36	3.5	33	6.8	49
Wisconsin	8.5	8	5.2	7	3.3	25	4.7	2
Wyoming	10.8	49	6.1	33	4.6	45	6.8	48
United States	8.9	—	5.8	—	3.1	—	5.6	—

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

TABLE 1.9C

Mortality Rates in the First Year of Life and Low-Birthweight Births, Black, 1986

State	Infant Mortality		Neonatal Mortality		Postneonatal Mortality		Low Birthweight	
	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
Alabama	20.0	29	13.4	24	6.7	19	11.9	15
Alaska	—	—	—	—	—	—	8.0	2
Arizona	14.7	3	—	—	—	—	11.2	9
Arkansas	15.3	5	7.3	1	8.0	25	12.0	18
California	16.2	7	9.9	6	6.3	12	11.9	16
Colorado	17.2	12	10.4	8	—	—	14.4	43
Connecticut	18.4	23	13.9	26	—	—	12.9	36
Delaware	17.6	18	13.3	22	—	—	12.1	21
District of Columbia	24.0	33	18.4	30	5.6	4	14.2	42
Florida	18.2	21	11.6	16	6.5	16	12.7	34
Georgia	18.4	22	12.4	19	5.9	5	12.1	23
Hawaii	—	—	—	—	—	—	8.0	1
Idaho	—	—	—	—	—	—	—	—
Illinois	22.3	31	14.4	27	7.8	24	14.2	41
Indiana	21.5	30	14.9	28	6.6	18	11.9	14
Iowa	—	—	—	—	—	—	12.1	22
Kansas	15.0	4	9.2	3	—	—	12.0	17
Kentucky	12.7	1	7.7	2	—	—	12.5	28
Louisiana	17.0	11	10.7	9	6.3	13	12.9	35
Maine	—	—	—	—	—	—	—	—
Maryland	17.3	14	12.6	21	4.7	1	12.6	32
Massachusetts	18.5	24	13.6	25	4.9	2	10.8	7
Michigan	22.8	32	16.6	29	6.2	11	13.9	39
Minnesota	16.4	9	—	—	—	—	13.1	37
Mississippi	16.2	8	9.7	4	6.6	17	11.7	12
Missouri	18.5	26	11.5	15	7.0	21	12.6	29
Montana	—	—	—	—	—	—	—	—
Nebraska	—	—	—	—	—	—	11.2	8
Nevada	—	—	—	—	—	—	14.0	40
New Hampshire	—	—	—	—	—	—	—	—
New Jersey	18.5	25	11.7	17	6.8	20	12.7	33
New Mexico	—	—	—	—	—	—	8.9	3
New York	16.7	10	10.8	10	6.0	7	12.6	30
North Carolina	17.4	17	11.5	14	6.0	8	12.2	25
North Dakota	—	—	—	—	—	—	—	—
Ohio	17.4	16	11.2	11	6.2	10	12.1	24
Oklahoma	17.3	13	10.2	7	7.1	22	11.4	11
Oregon	—	—	—	—	—	—	10.0	5
Pennsylvania	19.8	28	13.3	23	6.5	15	13.9	38
Rhode Island	—	—	—	—	—	—	12.1	19
South Carolina	18.1	20	11.8	18	6.3	14	12.4	27
South Dakota	—	—	—	—	—	—	—	—
Tennessee	18.6	27	11.3	13	7.2	23	12.6	31
Texas	15.9	6	9.9	5	5.9	6	12.3	26
Utah	—	—	—	—	—	—	9.3	4
Vermont	—	—	—	—	—	—	—	—
Virginia	18.0	19	12.5	20	5.5	3	11.3	10
Washington	13.5	2	—	—	—	—	10.7	6
West Virginia	—	—	—	—	—	—	11.8	13
Wisconsin	17.3	15	11.3	12	6.0	9	12.1	20
Wyoming	—	—	—	—	—	—	—	—
United States	18.0	—	11.7	—	6.3	—	12.5	—

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

TABLE 1.9D

Mortality Rates in the First Year of Life and Low-Birthweight Births, Nonwhite, 1986

State	Infant Mortality		Neonatal Mortality		Postneonatal Mortality		Low Birthweight	
	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank
Alabama	19.8	34	13.2	30	6.5	22	11.8	32
Alaska	12.2	11	—	—	—	—	6.2	2
Arizona	11.2	5	5.8	1	5.5	10	7.0	7
Arkansas	14.7	16	7.1	7	7.7	29	11.7	30
California	10.4	3	6.3	3	4.1	2	8.8	14
Colorado	11.9	8	7.4	10	—	—	12.0	36
Connecticut	16.3	21	12.1	26	—	—	12.2	40
Delaware	17.0	27	13.0	29	—	—	11.7	29
District of Columbia	22.6	39	17.3	34	5.4	9	13.6	48
Florida	17.4	28	11.1	22	6.3	21	12.4	42
Georgia	17.9	31	12.1	27	5.8	11	11.9	35
Hawaii	9.6	1	6.6	5	3.0	1	7.3	10
Idaho	—	—	—	—	—	—	7.3	9
Illinois	21.1	37	13.7	31	7.4	28	13.6	47
Indiana	20.3	36	14.2	32	6.1	19	11.5	25
Iowa	—	—	—	—	—	—	10.2	19
Kansas	12.4	12	7.3	8	—	—	10.7	21
Kentucky	12.2	10	7.3	9	—	—	12.1	38
Louisiana	16.5	23	10.3	15	6.1	18	12.6	44
Maine	—	—	—	—	—	—	—	—
Maryland	16.1	19	11.8	25	4.3	4	12.0	37
Massachusetts	14.6	15	10.4	16	4.2	3	9.5	16
Michigan	21.2	38	15.4	33	5.8	12	13.1	45
Minnesota	13.1	13	5.8	2	7.3	27	9.2	15
Mississippi	16.2	20	9.6	13	6.6	23	11.6	27
Missouri	17.6	29	10.9	20	6.6	24	12.2	39
Montana	—	—	—	—	—	—	5.4	1
Nebraska	20.2	35	—	—	—	—	9.5	17
Nevada	11.7	7	—	—	—	—	11.3	23
New Hampshire	—	—	—	—	—	—	—	—
New Jersey	16.4	22	10.5	17	5.9	15	11.8	33
New Mexico	12.0	9	—	—	6.9	25	6.4	3
New York	15.0	17	9.7	14	5.3	7	11.7	28
North Carolina	16.6	24	10.8	19	5.8	13	11.8	34
North Dakota	—	—	—	—	—	—	6.5	5
Ohio	16.7	26	10.8	18	6.0	16	11.8	31
Oklahoma	11.4	6	6.7	6	4.7	5	8.5	13
Oregon	10.4	4	—	—	—	—	6.5	4
Pennsylvania	18.4	33	12.5	28	6.0	17	13.3	46
Rhode Island	—	—	—	—	—	—	10.2	18
South Carolina	17.9	30	11.7	24	6.2	20	12.3	41
South Dakota	27.5	40	—	—	15.5	30	7.1	8
Tennessee	18.3	32	11.1	21	7.2	26	12.4	43
Texas	14.3	14	9.0	11	5.4	8	11.6	26
Utah	—	—	—	—	—	—	6.8	6
Vermont	—	—	—	—	—	—	—	—
Virginia	16.7	25	11.5	23	5.2	6	10.9	22
Washington	9.7	2	6.4	4	—	—	7.9	12
West Virginia	—	—	—	—	—	—	11.3	24
Wisconsin	15.3	18	9.4	12	5.8	14	10.4	20
Wyoming	—	—	—	—	—	—	7.8	11
United States	15.7	—	10.1	—	5.6	—	11.2	—

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

serious problems in 1986, and their combined impact elevated a state's total infant mortality rate. This was true in 1986 for Illinois and Pennsylvania for all nonwhite infants, and for Wyoming and Idaho for white infants (Tables 1.9B and D).

- The high infant mortality rate in the United States is in significant part caused by the problem of low birthweight. In fact, low birthweight contributes to two-thirds of all neonatal deaths. As Tables 1.9A-D illustrate, most states with relatively high infant mortality rates record a high incidence of low birthweight. For example, southern states such as Georgia and South Carolina, both of which had poor rankings in 1986 on infant mortality and neonatal mortality, tended to have high proportions of infants born at low birthweight compared with other states and the national average.

This country's poor infant health record is by no means entirely explained by low birthweight, however. Some states with relatively good low-birthweight figures also have high infant mortality rates. For example, South Dakota, which in 1986 ranked forty-eighth for white infant mortality, ranked sixth with respect to the proportion of all births that were low birthweight. Similar problems were evident for white infants in Alaska, Oregon, and Washington.

- Still other states had a high incidence of low birthweight but relatively good infant mortality rates. This was true for Colorado in the case of white infants and for Kentucky in the case of black infants. This suggests that small infants in these states may be overcoming the life-threatening impact of low birthweight through expensive inpatient interventions. But the toll taken by the nation's high incidence of low-birthweight births continues for many children after the technological interventions have been completed. A significant proportion of these children also will face lifelong disabilities from such conditions as retardation, cerebral palsy, and vision and learning disabilities.

City Findings

Babies born in non-metropolitan areas are at slightly greater risk of infant death than their metropolitan counterparts.[10] But the metropolitan rates combine cities and suburbs. When considered alone, babies born in the urban core of America's large cities are at the highest risk of death during infancy among all American children. Fourteen percent of live births are to residents of large cities, but 18 percent of infant deaths occur in these cities. In 1986, seventeen of the twenty-two U.S. cities with populations of 500,000 or more had infant mortality rates above the national average (Table 1.10). Seventeen cities had white infant mortality rates above the U.S. white rate (Table 4.36B).

Urban black infants generally face a far greater risk of death than urban white infants. A black infant born in Boston, Detroit, or Los Angeles in 1986 was two and a half times as likely as a white infant born in the same city to die in the first year of life. In three other cities (Chicago, Indianapolis, and Philadelphia), a black infant was more than twice as likely as a white infant to die (Table 1.10).

However, in 1986 wide variation existed in the largest cities' black infant mortality rates (Table 4.36C). A black infant born in Indianapolis was more than one and a half times as likely to die as an infant born in Columbus. A black infant born in Indianapolis was more likely to die in the first year of life than an infant born in North or South Korea. A black infant born in Boston, Chicago, Detroit, the District of Columbia, Indianapolis, Los Angeles, or Philadelphia was as likely to die as an infant born in Trinadad and Tobago.

While city infant mortality rates generally have been declining, progress has been uneven. In some cases, infant mortality rates actually have increased during the 1980s.

TABLE 1.10

Infant Mortality Rates for Cities of 500,000+ Population, 1986

City	Total	White	Black	Nonwhite
Baltimore	16.2	12.6	18.2	17.8
Boston	13.9	8.4	23.0	20.7
Chicago	16.6	10.7	22.9	22.2
Cleveland	16.3	11.9	20.3	20.3
Columbus	12.3	11.9	13.8	13.0
Dallas	11.8	9.8	16.0	15.3
Detroit	20.3	9.7	24.0	23.6
District of Columbia	21.1	—	24.0	22.6
Houston	11.3	9.2	17.2	15.7
Indianapolis	14.2	10.7	24.6	24.0
Jacksonville	13.1	10.0	19.7	19.0
Los Angeles	10.1	8.0	21.2	15.9
Memphis	15.8	10.7	18.4	18.6
Milwaukee	12.2	9.0	17.2	16.2
New Orleans	15.5	12.5	16.8	16.4
New York City	12.4	11.2	15.5	14.0
Philadelphia	15.5	9.6	21.8	20.7
Phoenix	11.0	10.3	—	16.0
San Antonio	10.2	9.6	—	—
San Diego	9.4	8.7	14.3	11.1
San Francisco	8.8	10.1	—	7.6
San Jose	7.3	7.3	—	—
United States	10.4	8.9	18.0	15.7

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

- Nine of the twenty-two largest cities had 1986 overall infant mortality rates that were higher than their 1985 rates. These were: Cleveland, Columbus, Dallas, Detroit, the District of Columbia, Houston, Phoenix, San Diego, and San Francisco. Two cities—Boston and Columbus—had rates that were slightly higher in 1986 than in 1980 (Table 4.35A).
- In five cities, Baltimore, Cleveland, Dallas, Phoenix, and San Francisco, the 1986 white infant mortality rates were higher than the 1985 rates, and in two cities, Columbus and New Orleans, the white rate was higher in 1986 than in 1980 (Table 4.35B).
- In nine of eighteen cities with measurable rates (Chicago, Cleveland, Columbus, Detroit, the District of Columbia, Houston, Indianapolis, Los Angeles, and New York City), the black infant mortality rate was higher in 1986 than in 1985, and in three cities (Boston, Houston, and Indianapolis), black rates were higher in 1986 than in 1980 (Table 4.37C).
- In six of twenty cities with measurable rates, all nonwhite infant mortality rates were higher in 1986 than in 1985. These were Chicago, Cleveland, Columbus, Detroit, Houston, and Indianapolis. In three cities, Boston, Houston, and Indianapolis, the 1986 all nonwhite rate was higher than in 1980 (Table 4.37D).
- In Indianapolis, with the highest black infant mortality of any large city, the rate increased by more than 10 percent between 1980 and 1986.
- Of the nearly 39,000 babies who died before their first birthday in 1986, more than 7,000 (18 percent) were infants in the nation's largest cities. In 1986 nearly 1,500 infants died in New York City alone, and nearly 600 black infants died in Chicago.

Births to Teens

National Findings

- In 1986 there were 472,081 births to women younger than twenty (Table 1.1). Births to teens accounted for 12.6 percent of all births, down slightly from 1985, when 12.7 percent of all births were to teens. The year 1986 was the thirteenth in a row in which the proportion of births that were to teens declined (Table 4.10). Births to women younger than twenty have not accounted for as small a share of all births since the 1950s. In part this reflects the smaller number of teens in the population. In 1986, fifteen- to nineteen-year-old women were 16 percent of all women of childbearing age, compared with 20 percent in 1980. But the teen birth rate (number of live births per 1,000 women in an age group), which tells how often young women are giving birth, regardless of the size of the teen population, also declined between 1985 and 1986. The birth rate for women in this age group was the lowest it has been in the United States since the mid-1930s.
- Births to women younger than twenty accounted for 10.6 percent of all white births in 1986. The percentage of all white births to women younger than twenty has declined every year since 1973.
- Births to women younger than twenty also have accounted for a shrinking share of black births. Still, 22.8 percent of black births were to women younger than twenty in 1986, more than twice the proportion for whites (Table 1.1). By 1986 the percentage of all black births to women younger than twenty had declined more than 11 percentage points after reaching a peak in 1973 (Table 4.10).
- In 1986 there were 10,176 births to mothers younger than fifteen. The proportion of all births to that age group stood at 0.3 percent, unchanged from 1985 levels.
- Despite the overall declining incidence of teen births, birth rates for black teens rose for the third year in a row. This change was primarily a reflection of increases in the birth rates for very young black teens (ages ten to fourteen) and older black teens (ages eighteen and nineteen). This trend is a reversal of a decade-long trend toward lower black teen birth rates and is part of a pattern of increases in birth rates among every age group of black women.

State Findings

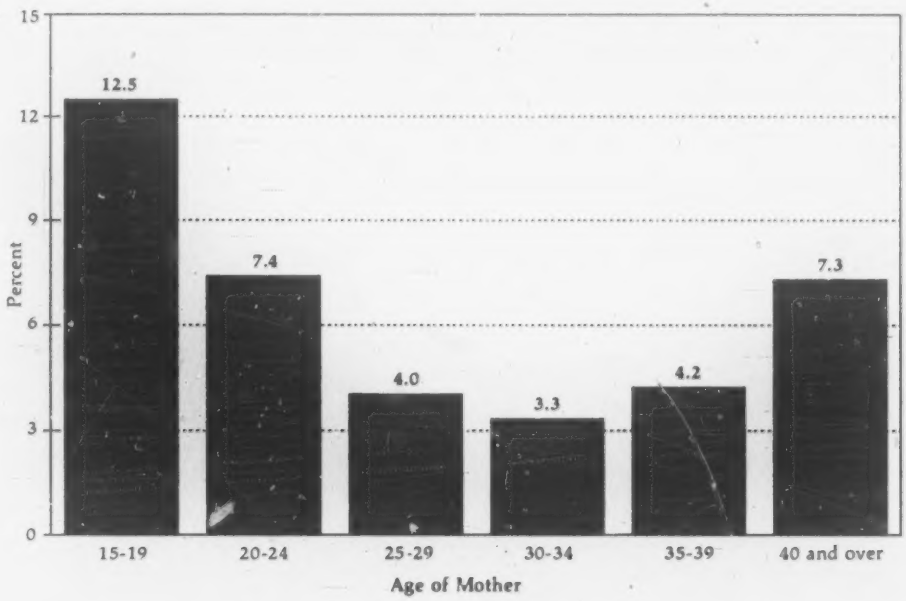
- Among states, the proportion of births to teens varied greatly in 1986. Infants, and particularly white infants, born in southern states were more likely to be born to teenage mothers than those in other states. Of the ten states with the greatest proportion of all white births to teen mothers in 1986, nine were southern (Table 4.25B).
- No such regional patterns existed for black and all nonwhite infants, however. High proportions of black and all nonwhite teen births occurred in both southern and non-southern states (Tables 4.25C-D). In both Arkansas and Wisconsin, for example, 29 percent of all black births were to teens. This lack of a regional pattern in the case of black births also held true for births to women younger than fifteen.

Births to Teens and the Risk of Low-Birthweight Births

Among all age groups of women giving birth, teens are the least likely to receive early prenatal care (Figure 1.7). Delayed receipt of prenatal care is

FIGURE 1.7

Percent of Babies Born to Mothers Receiving Late or No Prenatal Care, by Age of Mother, U.S., 1986



SOURCE: National Center for Health Statistics.

associated with a higher risk of low birthweight among infants born to teens (Table 1.11).

- In 1986, one in five infants born to mothers younger than fifteen and one in eight infants born to mothers ages fifteen to nineteen was born at low birthweight. In contrast, one in fourteen infants born to twenty- to twenty-four-year-olds was born at low birthweight.
- Table 1.12A shows that in 1986 in fifteen states (Alabama, Connecticut, Delaware, the District of Columbia, Florida, Georgia, Illinois, Louisiana, Maryland, Mississippi, New Jersey, New York, North Carolina, Pennsylvania, and South Carolina) at least 10 percent or more of babies born to teen mothers were born at low birthweight.

Despite the greater risk for low birthweight, births to teen mothers alone do not account for the nation's disproportionately high incidence of low birthweight. Nationally, teens account for only one in six low-birthweight births. In 1986 teen births accounted for no more than 27 percent of low-birthweight births in any state. This is because births to teens do not account for a large proportion of all births. Births to teen mothers in 1986 ranged from 7.3 percent of all births in Minnesota to 20.5 percent in Mississippi.

- States with the highest proportion of births to teens tend also to have the highest proportions of low-birthweight births attributable to teens. The ten states with the highest percentages of low-birthweight births attributable to teens in 1986—Alabama, Arkansas, Georgia, Kentucky, Louisiana, Mississippi,

TABLE 1.11

Birth Outcome and Prenatal Care, by Age, U.S., 1986

	Under Age 15	Ages 15-19	Ages 20-24	All Women
Percentage of babies born at low birthweight (5.5 pounds or less)	13.8	9.3	7.0	6.8
Percentage of babies born to mothers who received early prenatal care	36.1	53.4	70.7	75.9
Percentage of babies born to mothers who received late or no prenatal care	20.8	12.5	7.4	6.0

SOURCE: National Center for Health Statistics.

North Carolina, South Carolina, Tennessee, and West Virginia—ranked among the states with the highest percentages of births to teen mothers.

- However, the risk of low birthweight among infants born to teens is not only found in states with a high proportion of births to teenage mothers. For example, New Jersey in 1986 had one of the highest percentages of low-birthweight babies born to teen mothers. The percentage of all low-birthweight births in that state that were attributable to teens, however, was lower than the national average, because the percentage of births to teens was relatively low.

Births to Unmarried Women

National Findings

According to the National Center for Health Statistics, "All measures of childbearing by unmarried women continued to rise in 1986, reaching the highest levels ever observed in the U.S."[11] Childbearing by unmarried black women remains substantially higher than for white women, although the difference has narrowed because of a greater rate increase in unmarried childbearing among white women.

- Infants born to unmarried mothers are far more likely than other babies to be poor, particularly if the unmarried mother is a teen. In 1986, 23.4 percent of all births nationally were to unmarried women, a 6 percent increase over 1985 levels when 22.0 percent of all births were to unmarried women (Table 1.13). The proportion of white births that were to unmarried women increased the most—by 8 percent between 1985 and 1986 (from 14.5 percent to 15.7 percent). Among black women, the proportion of births to unmarried mothers increased by just 2 percent (from 60.1 percent in 1985 to 61.2 percent). However, in 1986 a black infant was nearly four times as likely as a white infant to be born to an unmarried woman.

TABLE 1.12A

Births to Women Under Age 20 and the Risk of Low-Birthweight Births, All Races, 1986

State	Teen Births		Low-Birthweight Births			
			Among All Teen Births		Accounted for by Teens	
	Rate	Rank	Rate	Rank	Rate	Rank
Alabama	17.4	48	10.6	41	22.9	49
Alaska	8.7	5	5.8	1	10.9	3
Arizona	13.8	36	7.7	15	17.2	32
Arkansas	19.0	50	9.9	36	24.7	50
California	10.9	23	7.4	8	13.6	13
Colorado	10.2	17	9.5	33	12.6	9
Connecticut	8.8	6	10.4	40	14.0	17
Delaware	13.2	32	11.3	47	19.9	40
District of Columbia	17.0	46	13.0	51	18.1	34
Florida	13.8	35	10.4	39	18.8	37
Georgia	17.0	45	10.7	44	22.5	48
Hawaii	9.6	12	9.2	31	12.8	11
Idaho	10.8	21	6.6	4	13.7	15
Illinois	12.5	31	10.7	43	17.9	33
Indiana	14.0	37	8.8	23	19.4	39
Iowa	9.2	8	8.6	20	15.1	24
Kansas	11.5	25	8.9	24	16.4	27
Kentucky	17.4	49	8.9	26	21.9	45
Louisiana	16.8	43	11.4	49	22.1	47
Maine	11.6	26	6.9	5	15.6	25
Maryland	11.7	27	10.7	45	16.4	28
Massachusetts	8.3	4	8.9	25	12.8	12
Michigan	12.3	30	9.1	29	16.2	26
Minnesota	7.3	1	7.6	10	10.9	2
Mississippi	20.5	51	11.4	48	27.0	51
Missouri	13.4	34	8.6	22	17.0	31
Montana	10.1	16	7.4	9	12.7	10
Nebraska	8.9	7	7.6	11	12.3	7
Nevada	11.9	28	9.3	32	15.0	23
New Hampshire	7.7	2	8.0	17	11.9	4
New Jersey	9.4	11	10.8	46	15.0	22
New Mexico	15.3	39	8.9	27	19.4	38
New York	9.7	13	10.3	38	13.7	14
North Carolina	15.9	41	10.7	42	21.4	44
North Dakota	8.0	3	6.6	3	10.7	1
Ohio	13.3	33	9.1	28	18.2	35
Oklahoma	15.6	40	7.7	12	18.4	36
Oregon	10.9	22	7.0	6	14.8	21
Pennsylvania	11.3	24	10.1	37	16.6	30
Rhode Island	10.3	18	7.7	13	12.3	8
South Carolina	16.6	42	11.4	50	22.1	46
South Dakota	9.7	14	6.5	2	12.0	5
Tennessee	17.0	44	9.9	35	21.2	43
Texas	15.2	38	9.2	30	20.3	41
Utah	9.3	10	8.4	19	14.4	19
Vermont	9.2	9	7.7	16	13.8	16
Virginia	12.0	29	9.6	34	16.5	29
Washington	10.4	19	7.0	7	14.1	18
West Virginia	17.1	47	8.6	21	21.1	42
Wisconsin	9.9	15	8.0	18	14.7	20
Wyoming	10.7	20	7.7	14	12.1	6
United States	12.6	—	9.4	—	17.3	—

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

TABLE 1.12B

Births to Women Under Age 20 and the Risk of Low-Birthweight Births, White, 1986

State	Teen Births		Low-Birthweight Births			
			Among All Teen Births		Accounted for by Teens	
	Rate	Rank	Rate	Rank	Rate	Rank
Alabama	13.7	43	8.0	32	18.3	41
Alaska	6.9	7	5.4	1	9.5	4
Arizona	12.9	41	7.8	25	16.7	38
Arkansas	15.9	49	7.9	28	20.1	47
California	10.6	30	6.4	4	13.1	20
Colorado	9.8	25	9.1	47	12.2	16
Connecticut	6.8	6	8.4	42	10.2	5
Delaware	9.3	22	9.3	48	14.5	30
District of Columbia	4.5	1	—	—	—	—
Florida	10.6	31	7.7	21	13.8	24
Georgia	13.6	42	8.1	37	18.5	44
Hawaii	6.4	4	—	—	—	—
Idaho	10.7	32	6.8	8	14.2	27
Illinois	8.8	17	7.9	27	12.5	17
Indiana	12.5	40	7.7	22	16.8	39
Iowa	8.7	16	8.1	36	14.1	26
Kansas	10.3	27	8.0	33	14.8	31
Kentucky	16.7	50	8.1	35	20.8	48
Louisiana	12.4	38	7.7	19	16.3	35
Maine	11.5	36	6.9	11	15.6	33
Maryland	8.1	14	7.4	17	11.0	10
Massachusetts	7.6	9	8.4	41	12.0	15
Michigan	9.8	24	7.4	15	13.3	22
Minnesota	6.3	3	6.8	9	9.1	2
Mississippi	14.1	46	8.0	30	18.8	45
Missouri	11.2	34	7.3	14	14.3	28
Montana	8.7	15	7.4	16	10.9	9
Nebraska	7.9	12	6.8	7	10.3	6
Nevada	10.5	28	7.9	26	12.6	18
New Hampshire	7.7	10	8.0	29	12.0	14
New Jersey	6.3	2	9.0	46	10.5	8
New Mexico	15.0	48	9.5	49	19.8	46
New York	7.8	11	8.5	45	11.6	12
North Carolina	12.5	39	8.3	40	16.9	40
North Dakota	6.7	5	6.7	6	9.5	3
Ohio	11.5	35	8.0	31	16.1	34
Oklahoma	13.8	44	7.1	13	16.5	37
Oregon	10.7	33	7.1	12	15.1	32
Pennsylvania	9.1	18	8.3	39	13.4	23
Rhode Island	9.5	23	6.5	5	10.4	7
South Carolina	12.4	37	8.1	34	16.3	36
South Dakota	7.5	8	6.0	2	9.1	1
Tennessee	14.6	47	8.2	38	18.4	42
Texas	14.1	45	7.7	23	18.4	43
Utah	9.2	19	8.4	44	14.4	29
Vermont	9.2	20	7.7	20	13.9	25
Virginia	9.2	21	7.8	24	12.8	19
Washington	9.9	26	6.4	3	13.2	21
West Virginia	17.0	51	8.4	43	21.0	49
Wisconsin	7.9	13	6.9	10	11.5	11
Wyoming	10.5	29	7.6	18	11.8	13
United States	10.6	—	7.7	—	14.4	—

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

TABLE 1.12C

Births to Women Under Age 20 and the Risk of Low-Birthweight Births, Black, 1986

State	Teen Births		Low-Birthweight Births			
			Among All Teen Births		Accounted for by Teens	
	Rate	Rank	Rate	Rank	Rate	Rank
Alabama	24.9	34	13.2	17	27.5	30
Alaska	10.6	2	—	—	—	—
Arizona	21.3	16	12.1	7	23.0	10
Arkansas	29.3	43	13.3	18	32.5	36
California	18.3	9	11.5	2	17.6	3
Colorado	17.6	8	14.0	27	17.1	1
Connecticut	22.9	20	14.5	34	25.6	18
Delaware	25.6	37	13.4	20	28.4	32
District of Columbia	20.1	12	13.5	22	19.2	5
Florida	24.0	27	14.1	29	26.4	23
Georgia	23.8	26	13.5	21	26.5	24
Hawaii	7.2	1	—	—	—	—
Idaho	—	—	—	—	—	—
Illinois	26.2	39	13.9	25	25.7	19
Indiana	27.4	40	12.9	10	29.8	33
Iowa	24.7	32	14.6	35	29.8	34
Kansas	22.4	18	13.0	12	24.3	15
Kentucky	25.2	35	14.0	28	28.2	31
Louisiana	23.8	25	14.4	32	26.4	22
Maine	—	—	—	—	—	—
Maryland	20.4	13	13.8	24	22.2	8
Massachusetts	16.8	5	11.8	4	18.5	4
Michigan	24.1	29	12.5	9	21.7	7
Minnesota	21.2	15	14.4	33	23.5	11
Mississippi	28.0	41	13.3	19	31.8	35
Missouri	25.7	38	11.7	3	24.0	13
Montana	—	—	—	—	—	—
Nebraska	22.6	19	13.0	11	26.2	20
Nevada	24.8	33	15.0	36	26.6	25
New Hampshire	—	—	—	—	—	—
New Jersey	22.9	21	13.1	14	23.6	12
New Mexico	16.0	3	—	—	—	—
New York	16.9	6	13.0	13	17.4	2
North Carolina	24.1	28	13.6	23	26.9	27
North Dakota	—	—	—	—	—	—
Ohio	24.5	31	12.1	8	24.5	17
Oklahoma	23.3	22	11.8	5	24.1	14
Oregon	19.2	10	—	—	—	—
Pennsylvania	24.2	30	14.0	26	24.4	16
Rhode Island	19.4	11	—	—	—	—
South Carolina	23.4	23	14.2	30	26.8	26
South Dakota	—	—	—	—	—	—
Tennessee	25.2	36	13.1	15	26.2	21
Texas	23.6	24	14.2	31	27.4	29
Utah	16.1	4	—	—	—	—
Vermont	—	—	—	—	—	—
Virginia	21.5	17	12.1	6	22.8	9
Washington	17.1	7	13.2	16	21.2	6
West Virginia	21.2	14	—	—	—	—
Wisconsin	29.0	42	11.3	1	27.1	28
Wyoming	—	—	—	—	—	—
United States	22.8	—	13.3	—	24.1	—

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

TABLE 1.12D

Births to Women Under Age 20 and the Risk of Low-Birthweight Births, Nonwhite, 1986

State	Teen Births		Low-Birthweight Births			
			Among All Teen Births		Accounted for by Teens	
	Rate	Rank	Rate	Rank	Rate	Rank
Alabama	24.4	42	13.2	26	27.3	36
Alaska	12.6	4	6.3	1	12.9	1
Arizona	18.3	16	7.5	3	19.4	10
Arkansas	28.5	49	13.2	27	32.1	41
California	12.1	2	10.6	8	14.5	3
Colorado	14.5	8	12.4	18	15.1	4
Connecticut	20.6	29	14.5	41	24.4	24
Delaware	24.4	43	13.5	32	28.0	38
District of Columbia	19.5	22	13.3	28	19.0	9
Florida	23.0	34	14.0	37	25.9	30
Georgia	23.2	37	13.4	31	26.1	32
Hawaii	10.6	1	9.6	6	13.9	2
Idaho	14.6	9	—	—	—	—
Illinois	24.5	44	13.9	35	25.1	27
Indiana	26.0	47	12.9	21	29.2	39
Iowa	19.3	19	13.1	23	24.7	26
Kansas	19.9	25	11.9	14	22.3	19
Kentucky	23.7	40	14.0	36	27.4	37
Louisiana	23.0	36	14.2	40	25.9	31
Maine	15.1	12	—	—	—	—
Maryland	18.8	18	13.5	33	21.1	11
Massachusetts	13.9	6	11.2	11	16.6	6
Michigan	22.7	33	12.3	17	21.4	14
Minnesota	18.2	15	10.7	9	21.3	13
Mississippi	27.7	48	13.3	29	31.6	40
Missouri	24.4	41	11.7	13	23.3	21
Montana	19.4	20	—	—	—	—
Nebraska	20.0	26	11.7	12	24.6	25
Nevada	18.3	17	13.1	25	21.2	12
New Hampshire	—	—	—	—	—	—
New Jersey	20.1	27	12.9	22	22.0	18
New Mexico	16.8	13	6.5	2	17.2	7
New York	15.0	10	12.9	20	16.5	5
North Carolina	23.4	39	13.4	30	26.5	35
North Dakota	19.8	24	—	—	—	—
Ohio	23.2	38	12.0	15	23.7	23
Oklahoma	22.0	31	8.9	5	23.1	20
Oregon	13.1	5	—	—	—	—
Pennsylvania	22.6	32	13.9	34	23.7	22
Rhode Island	17.0	14	12.9	19	21.6	16
South Carolina	23.0	35	14.1	39	26.5	34
South Dakota	20.5	28	7.5	4	21.7	17
Tennessee	24.6	45	13.1	24	25.9	29
Texas	21.0	30	14.1	38	25.7	28
Utah	12.3	3	—	—	—	—
Vermont	—	—	—	—	—	—
Virginia	19.5	21	12.0	16	21.5	15
Washington	13.9	7	10.2	7	17.8	8
West Virginia	19.5	23	—	—	—	—
Wisconsin	25.2	46	10.8	10	26.2	33
Wyoming	15.0	11	—	—	—	—
United States	19.9	—	12.7	—	22.6	—

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

TABLE 1.13

Percentage of Births to Unmarried Women[1], by Race, U.S., 1970-1986

Year	All Races	White	Nonwhite	
			Total	Black
1970	10.7	5.7	34.9	37.6
1971	11.3	5.6	37.3	40.5
1972	12.4	6.0	40.3	43.9
1973	13.0	6.4	41.7	45.8
1974	13.2	6.5	42.7	47.1
1975	14.3	7.3	44.2	48.8
1976	14.8	7.7	45.2	50.3
1977	15.5	8.2	46.5	51.7
1978	16.3	8.7	47.6	53.2
1979	17.1	9.4	48.8	54.7
1980	18.4	11.0	48.5	55.3
1981	18.9	11.6	48.5	56.0
1982	19.4	12.1	48.8	56.7
1983	20.3	12.8	50.0	58.2
1984	21.0	13.4	50.8	59.2
1985	22.0	14.5	51.4	60.1
1986	23.4	15.7	52.4	61.2

[1]Sample estimates vary by year. See Technical Notes.

SOURCE: National Center for Health Statistics.

Thus, while the proportion of all births that are to teens is falling, the proportion of births to unmarried women of all ages continues to increase, placing families at greater risk of poverty. In 1987 one in every two children living in female-headed households was poor. Among very young children living in households headed by single mothers younger than twenty-two, 88.8 percent were poor in 1987.

- For the ninth year in a row, the birth rate for unmarried women increased. In 1986 the birth rate for unmarried women rose 5 percent from 32.8 to 34.3 per 1,000 unmarried women.
- In 1986, one-third of all births to unmarried women were to teens. This was true among whites, blacks, and all nonwhites (Tables 4.33A-D). Teen mothers were two and a half times more likely to be unmarried than mothers of all ages. In 1986, 61.5 percent of all births to teens were to unmarried women, up from 58.7 percent in 1985.

State Findings

There was wide variation at the state level during 1986 in the proportion of births that were to unmarried mothers (Tables 4.31A-D).

- In California and New Mexico, nearly one in four white births in 1986 was to an unmarried mother, 1.6 times the national average.
- In the District of Columbia, where the majority of all births are to all nonwhite women, 57.7 percent of all 1986 births were to unmarried women—2.5 times the national average.
- In Illinois, Wisconsin, and Pennsylvania, nearly three-quarters of all black births were to unmarried women, 1.2 times the national average.

Child Health Status

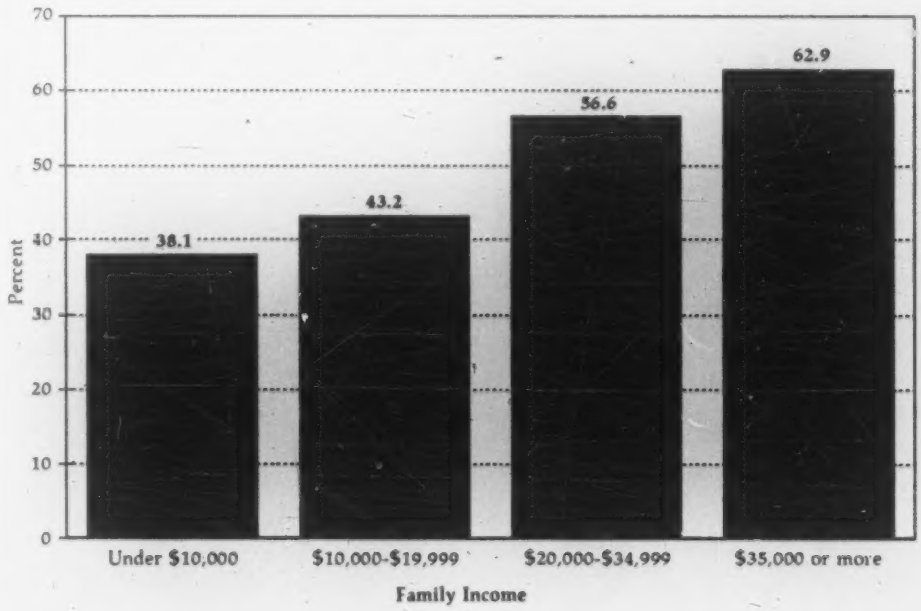
Measuring the health status of children who survive infancy is difficult because there is no data system measuring child health status that is comparable to the vital statistics system for infants and pregnant women. Most child health indicators are measured through national surveys, and often they are not measured annually. However, several national sources of data provide important insights into the overall health of American children. This section reviews a series of child health statistics from a variety of national reporting systems that derive estimates on the health status of children by means of household surveys. (These systems are described in Technical Notes.)

General Health Status and the Risk of Disability

- In 1986 the nation's poorest children younger than five were about one-third less likely than the nation's most affluent children to be reported in excellent health (Table 1.14). The poorest five- to seventeen-year-olds were about 40 percent less likely to be in excellent health (Figure 1.8).
- Black children younger than five, who are far more likely than white children to be poor, were 25 percent less likely than white children to be reported in excellent health. Black children ages five to seventeen were 28 percent less likely to be reported in excellent health.

FIGURE 1.8

Percent of Children 5-17 Years Old in Excellent Health, by Family Income , U.S., 1986



SOURCE: National Center for Health Statistics.

- One in twenty American children in 1986 had a disability or chronic illness serious enough to impair normal daily functioning. Other national estimates indicate that 11 percent of all children have a conditions serious enough to impair their ability to learn in school. If all mild to moderate disabilities were included, 20 percent of all children would have been classified that year as having at least one disabling condition.[12]
- The nation's poorest children younger than eighteen in 1986 were one and a half times more likely than the nation's most affluent children to suffer activity limitations because of a chronic illness or condition. The poorest five- to seventeen-year-olds were more likely to miss school days each year because of either acute or chronic illnesses or conditions.

TABLE 1.14

Child Health Status, by Age, Race, and Annual Income, 1986

	All	Race		Income	
		White	Black	Less Than $10,000	More Than $35,000
Children Under Age 5					
Percent in excellent health	53.8%	55.9%	42.2%	40.9%	63.9%
Number of bed days experienced due to acute or chronic conditions per child per year	4.9	4.9	5.1	5.7	5.0
Number of restricted days due to acute or chronic conditions per child per year	10.8	11.1	9.3	10.5	10.9
Children Ages 5 to 17					
Percent in excellent health	52.2%	54.6%	39.2%	38.1%	62.9%
Number of bed days experienced due to acute or chronic conditions per child per year	4.5	4.7	3.4	4.3	4.7
Number of restricted days due to acute or chronic conditions per child per year	9.5	10.0	6.9	10.5	9.6
Number of school days lost due to acute or chronic conditions per child per year	5.0	5.3	4.0	5.8	5.2
All Children Under Age 18					
Number of restricted activity days due to acute conditions per child per year	8.0	8.5	5.4	7.1	8.1
Percent with activity limitations due to chronic conditions	5.0%	5.0%	5.5%	6.9%	4.5%

SOURCE: National Center for Health Statistics, National Health Interview Survey.

Lead Poisoning

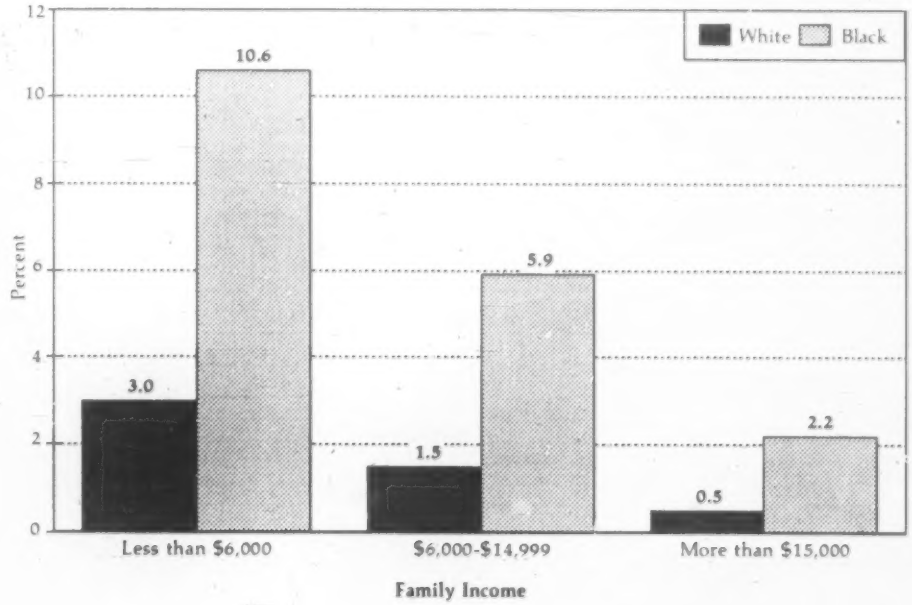
Lead has been identified by the American Academy of Pediatrics as one of the most significant hazards facing young children. Lead poisoning is an important measure of child health status, not only because it indicates the presence of a potentially life-threatening or permanently disabling condition, but also because it is indicative of the quality of the environment in which a child lives. While previously considered a problem associated primarily with severe acute poisoning resulting from activities such as ingestion of lead paint, lead toxicity is increasingly associated with chronic, low-level poisoning from exposure to contaminated air and water.

Lead poisoning can damage the central nervous system of children permanently and can lead to developmental delay, impaired intellectual development, and, in severe cases, death. Thus, it is essential that children at risk for blood lead poisoning are screened and treated and that the risks are abated. Blood lead screening is a mandatory component of the Medicaid Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program, but in 1987 only a minority of all children enrolled in Medicaid received EPSDT screening.[13]

A 1988 landmark study conducted by the U.S. Department of Health and

FIGURE 1.9

Estimated Percentage of Urban Children 6 Months to 5 Years Old[1] With High Blood Lead Levels[2], by Annual Family Income and Race, 1984



[1]Children living in central cities with populations of 1 million or more.
[2]For purposes of this graph, high blood lead levels are those above 25 μg/dl. The Centers for Disease Control has set a blood lead level of 25 μg/dl as a marker for lead poisoning. However, levels above 15 μg/dl have been found to have an adverse effect on children's health.

SOURCE: U.S. DHHS, *Current Lead Poisoning—United States: Report to the Congress by the Agency for Toxic Substances and Disease Registry.*

Human Services (DHHS) estimated the level of lead exposure among black and white children and women of childbearing age.[14] Researchers found that in 1984, an estimated 3 million to 4 million children younger than six had elevated blood lead levels. Children living in cities were more likely to be exposed to lead. Among young urban children, 2.4 million—17 percent of all such children, or nearly one in six—had elevated blood lead levels in 1984. The highest prevalence of lead poisoning was found among poor black children living in large inner-cities, with the lowest prevalence among nonpoor children living in suburban areas. However, hundreds of thousands of children in smaller cities across the country face a measurable risk of excessive lead exposure (Table 1.15).

TABLE 1.15

Estimated Number of Children 6 Months to 5 Years Old Who Were Exposed to Lead, by Blood Lead Levels[1] and Urban Status, 1984

	Blood lead levels (μg/dl)		
	More Than 15	More Than 20	More Than 25
Urban areas of more than 1 million population			
Central city	901,800	301,700	86,200
Noncentral city	591,600	157,800	42,000
Urban areas between 500,000 and 1 million population			
Central city	301,100	93,800	27,500
Noncentral city	181,900	48,600	12,800
Urban areas of less than 500,000 population	404,200	113,600	31,200
Total	2,380,600	715,500	200,700

[1]Blood lead levels are measured in units of micrograms of lead per deciliter of blood (μg/dl). Three ceilings for blood lead are used as standards: 25 μg/dl, set by the Centers for Disease Control in 1985; 20 μg/dl, set by the World Health Organization in 1986; and 15 μg/dl, set by the Environmental Protection Agency in 1986.

SOURCE: Agency for Toxic Substances and Disease Registry, *The Nature and Extent of Lead Poisoning in Children in the United States: A Report to Congress*, Atlanta, Georgia, U.S. Department of Health and Human Services, Public Health Service, July 1988.

Lead exposure during pregnancy presents great risks to a fetus. The impact could be serious and irreversible, resulting in increased risk of low-birthweight birth, prematurity, and deficits in mental and physical growth and development during the early years of life. One study found that (even after controlling for factors such as maternal alcohol and tobacco use and socioeconomic status) for every 10 micrograms of lead per deciliter of blood (μg/dl) in the mother, infants were born about a half-week prematurely, about 60 to 600 grams lighter, and had mental development scores depressed by about 8 points on standard IQ tests.[15] While a small drop in scores for individual children may not seem startling, researchers have noted that a four-point overall downward shift in the distribution of mental development scores would result in a 50 percent increase in the proportion of children who score in the range associated with mental retardation.[16]

More than 4 million women of childbearing age, including 400,000 pregnant women (and their fetuses), were estimated to be exposed to excessive levels of lead in 1984 (Table 1.16). DHHS researchers believe that the problem is actually more serious than these numbers imply—because the group of women who are pregnant changes from year to year, a whole new group of fetuses is exposed to lead each year. If 1984 exposure levels persist, more than 4 million fetuses could be exposed to potentially harmful levels of lead in the next decade.

TABLE 1.16

Estimated Number of Women of Childbearing Age and Pregnant Women Living in Cities Who Were Exposed to Lead, by Blood Lead Levels[1], Age, and Race, 1984

	Blood lead level (μg/dl)			
Women Age/Race	**More Than 10**	**More Than 15**	**More Than 20**	**More Than 25**
White				
15-19	504,000	27,400	5,500	1,600
20-44	2,884,800	535,300	119,000	29,700
Black				
15-19	90,000	14,300	2,200	500
20-44	981,800	184,400	34,900	10,000
Total	4,460,600	761,400	161,600	41,800
Pregnant Women Age/Race	**More Than 10**	**More Than 15**	**More Than 20**	**More Than 25**
White				
15-19	39,800	2,200	400	100
20-44	230,900	42,800	9,500	2,400
Black				
15-19	15,300	2,400	400	100
20-44	117,200	22,000	4,200	1,200
Total	403,200	69,400	14,500	3,800

[1]Blood lead levels are measured in units of micrograms of lead per deciliter of blood (μg/dl). Three ceilings for blood lead are used as standards: 25 μg/dl, set by the Centers for Disease Countrol in 1985; 20 μg/dl, set by the World Health Organization in 1986; and 15 μg/dl, set by the Environmental Protection Agency in 1986. Effects on pregnancy outcome and development have been documented at levels of 10-15 μg/dl.

SOURCE: *The Nature and Extent of Lead Poisoning in Children in the United States.*

AIDS

AIDS (Acquired Immunodeficiency Syndrome) is known largely as a problem among adults. But it also is a serious problem among children. The CDC define pediatric AIDS as cases reported among children younger than thirteen at the time of diagnosis. Pediatric AIDS is primarily a disease of infants and toddlers. Because the risk of AIDS from blood transfusions has been virtually eliminated, almost all new HIV (Human Immunodeficiency Virus) transmission to children

occurs before or during birth, or possibly after birth through breastfeeding. Between 1981 and September 1988 about 1,200 cases of pediatric AIDS had been reported. Of these, nearly 1,000 cases involved children younger than five. Approximately 80 percent of all reported pediatric AIDS cases—more than 900 children—can be traced to HIV-infected parents. The risk of HIV infection and AIDS among women of childbearing age and their infants is a relatively small but still critical aspect of the epidemic.

- Of the nearly 1,000 children younger than five reported to have AIDS as of September 1988, 56 percent were black non-Hispanic, 24 percent were Hispanic, and 19 percent were white non-Hispanic.
- Between June 1987 and July 1988, the number of cases of AIDS among children younger than five virtually doubled for each racial and ethnic group.
- The vast majority of young children exposed to or suffering from perinatally transmitted AIDS live in poor, inner-city areas with high concentrations of minority families. They live in or near the major urban areas of New York, New Jersey, Florida, California, Texas, Connecticut, Maryland, Illinois, Massachusetts, Pennsylvania, and Georgia (Table 1.17).

If a pregnant woman is infected, her baby's chances of being infected are high. The rate of perinatal transmission of HIV from mother to infant has been estimated most often to be about 50 percent. (Estimates range from 35 to 60 percent.) There appears to be no clear pattern for such transmission, and male and female infants are affected equally.

A small number of studies of HIV infection and AIDS cases among mothers and their infants have been undertaken since 1982. Findings include:

- The CDC estimate that by 1991 there will be 10,000 to 20,000 HIV-infected children younger than thirteen in the United States.[17]
- The prevalence of HIV infection among babies varies by geographic area. Screening of newborn blood samples indicates that the prevalence of HIV infection was 0.2 percent in Massachusetts and 0.8 percent in New York State.[18]
- One out of every 61 infants born in New York City in late 1987 was born to a woman infected with HIV. In blind screening, prevalence rates were more than 3.0 percent in some parts of the city.[19]

Among adolescents, AIDS occurs via the same routes of transmission as among adults (that is, most often through sexual intercourse and intravenous drug use). Of the more than 850 AIDS cases reported for thirteen- to twenty-one-year-olds by September 1988, nearly 50 percent occurred among homosexual or bisexual males and 12 percent among intravenous drug users. Both of these proportions were somewhat lower than among adults. However, 9 percent of adolescent AIDS cases—twice the proportion reported for all adults—were transmitted through heterosexual activity. Hemophilia-related cases among adolescents (resulting from past exposure to contaminated blood products) represented a far greater share of the total than among adults.[20]

Sexually active teens face a relatively high risk for sexually transmitted diseases, including AIDS. By age twenty, four out of five males and seven out of ten females are sexually experienced, with an estimated one-third of active teens in metropolitan areas having had two or three partners. Only one-third of sexually active young men report using condoms, the most commonly used guard against infection. Sexually active teens are reported to have the highest rates of reported sexually transmitted diseases, including syphilis and gonorrhea. For example, in 1987 about 73,500 males and 114,600 females ages fifteen to nineteen had reported cases of gonorrhea.[21]

Teens' risk of HIV infection also is indicated by the rapidly growing number of AIDS cases reported among twenty- to twenty-nine-year-olds. Given the long delay (eight years on average) between HIV infection and the onset of AIDS for adults, it seems likely that some proportion of the more than 15,000 cases reported among twenty- to twenty-nine-year-olds began as infections among teens.

TABLE 1.17

Reported AIDS Cases[1] Among Children Under Age 13, by State

State	Number	Percent of Total Cases Among Children
Arkansas	1	0.1
New Mexico	1	0.1
Wisconsin	1	0.1
Delaware	2	0.2
Hawaii	2	0.2
Idaho	2	0.2
Iowa	2	0.2
Kansas	2	0.2
Maine	2	0.2
Minnesota	2	0.2
Nevada	2	0.2
Oregon	2	0.2
West Virginia	2	0.2
Arizona	3	0.3
Indiana	3	0.3
Mississippi	3	0.3
New Hampshire	3	0.3
Rhode Island	4	0.3
Utah	4	0.3
Washington	4	0.3
Colorado	5	0.4
Oklahoma	6	0.5
Missouri	7	0.6
Tennessee	7	0.6
South Carolina	8	0.7
North Carolina	10	0.8
Alabama	11	0.9
Louisiana	12	1.0
Michigan	13	1.1
District of Columbia	14	1.2
Ohio	15	1.3
Virginia	19	1.6
Georgia	25	2.1
Pennsylvania	26	2.2
Massachusetts	26	2.2
Illinois	28	2.4
Maryland	28	2.4
Connecticut	33	2.8
Texas	43	3.6
California	93	7.8
Florida	141	11.9
New Jersey	163	13.8
New York	364	30.7

[1]Cumulative total number of cases reported from June 1981 through September 1988.

SOURCE: Centers for Disease Control.

Part One Notes

1. U.S. Congress, Office of Technology Assessment, *Healthy Children: Investing in the Future* (Washington: GPO, 1988), 6-7.

2. Office of Technology Assessment, *Healthy Children*, 6-7.

3. National Center for Health Statistics, "Advance Report of Final Mortality Statistics, 1986," *Monthly Vital Statistics Report* 37, No. 6 Supplement (Sept. 30, 1988), 8.

4. Centers for Disease Control, "Leading Major Congenital Malformations Among Minority Groups in the United States, 1981-1986," in CDC Surveillance Summaries, July 1988, *Morbidity and Mortality Weekly Report* 37, No. SS-3, 17-24.

5. Centers for Disease Control, "Ectopic Pregnancy—United States, 1984 and 1985," *Morbidity and Mortality Weekly Report* 37 (Oct. 21, 1988), 637-38.

6. Centers for Disease Control. "Ectopic Pregnancies in the United States, 1970-1983," in CDC Surveillance Summaries, Aug. 1986, *Morbidity and Mortality Weekly Report* 35, No. 2SS, 36.

7. Centers for Disease Control, "Ectopic Pregnancies," 36-37.

8. Stuart M. Berman, Elizabeth Shapiro, Carol J.R. Hogue, et al., "Increased Infant Mortality in Jersey City," *Public Health Reports* 102 (July-Aug. 1987), 404-9.

9. Everett R. Rhoades, Anthony J. D'Angelo, and Ward B. Hurlburt, "The Indian Health Service Record of Achievement," *Public Health Reports* 102 (July/Aug. 1987), 356-60.

10. National Center for Health Statistics, *Vital Statistics of the United States, 1985*, Vol. II, Mortality Part A (Washington: GPO, 1988).

11. National Center for Health Statistics, "Advance Report of Final Natality Statistics, 1986," *Monthly Vital Statistics Report* 37, No. 3, Supplement (July 1988), 7.

12. Department of Education, Office of Special Education and Rehabilitative Services, *Sixth Annual Report to Congress of the Implementation of the Education of the Handicapped Act*, (Washington: GPO, 1984). Paul Newacheck, et al., *Prevalence and Characteristics of Chronic Conditions Causing Disability Among Children* (San Francisco: Institute for Health Policy Studies, 1985).

13. Health Care Financing Administration, unpublished data concerning EPSDT performance indicators, Sept. 1988.

14. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, *The Nature and Extent of Lead Poisoning in Children in the United States: A Report to Congress* (Atlanta: GPO, 1988).

15. Agency for Toxic Substances and Disease Registry, *Lead Poisoning in Children*, IV-17-IV-19.

16. Agency for Toxic Substances and Disease Registry, *Lead Poisoning in Children*, IV-13.

17. Department of Health and Human Services, Public Health Service, *Report of the Surgeon General's Workshop on Children with HIV Infection* (Washington: GPO, 1987), 24.

18. Centers for Disease Control, "Quarterly Report to the Domestic Policy Council on the Prevalence and Rate of Spread of HIV and AIDS in the United States," *Morbidity and Mortality Weekly Report* 37 (April 15, 1988), 223-26.

19. Centers for Disease Control, "Quarterly Report," 223-26.

20. Kay Johnson, *Teens and AIDS: Opportunities for Prevention*, Adolescent Pregnancy Prevention Clearinghouse, Children's Defense Fund (Nov. 1988), 9-10.

21. K.R. O'Reilly and S.O. Aral, "Adolescence and Sexual Behavior: Trends and Implications," *Journal of Adolescent Health Care* 6, No. 4 (1985), 262-70.

Part Two:

Insurance Coverage and Health Care Utilization Patterns Among Children and Pregnant Women

The lack of health insurance and its consequent limiting effects on access to health care services are commonly thought to be associated with poor health status. The data in Part One of this book review some of the sobering outcomes of too little health care, too late, for mothers and children. In an effort to document better the financial barriers to health care and their resulting access limitations, this Part presents new information on health insurance coverage and health care utilization patterns among children. It also reviews key data on insurance coverage among pregnant women, as well as national and state trends on the receipt of prenatal care.

Children's Health Insurance Status

In 1986 approximately 50 million of the more than 62 million children younger than eighteen—slightly more than 80 percent of all such children—had some form of public or private health insurance. But nearly one out of five children living in families (which excludes such children as those living in institutions) was completely uninsured (Table 2.1). These aggregate statistics mask key differences by family income, race, parents' employment status, and source of health insurance coverage—variations that have critical implications for the design of interventions to reduce the proportion of uninsured children and improve children's health status.

Family Income, Employment, and Health Insurance Status

As the income of families with children rises, the proportion of completely uninsured children declines. Children in more affluent families are more likely to be insured. However, a considerable proportion of children from even moderate-income households are completely uninsured. In 1986, when 18.9 percent of all children living in families were uninsured, 32.4 percent of children living in families with incomes less than the federal poverty level were uninsured (Table 2.1). Even among children living in families with incomes between 100 and 200 percent of the federal poverty level, 28.7 percent were completely uninsured.

Children in working families are even more likely than those in non-working families to be completely uninsured, especially when they live in low- and moderate-income families (Table 2.2). In 1986, 19.1 percent of children in working families, and 42.0 percent of poor children in such families, were completely uninsured. This phenomenon results from two factors. First, the employer-based health insurance coverage system has eroded over the past decade, leaving more and more children without private insurance. Second, children living in working households, particularly those in moderate-income households, are generally ineligible for coverage under the Medicaid program.

Working families with children, even when poor, always have faced barriers to Medicaid eligibility. Many of these families are disqualified because their earnings, while very low, exceed their state's Medicaid financial eligibility level (which historically has been tied to eligibility standards for the Aid to Families

with Dependent Children—AFDC—program). In 1981 financial eligibility standards for working poor families were restricted further. Many families were removed from both the AFDC and Medicaid programs.

Furthermore, AFDC and Medicaid historically have restricted eligibility to children living in single-parent families. Other children living in low-income working families were disqualified because of the presence of both parents in the household. By 1988, sixteen states still had not elected the option (contained in the original 1965 Medicaid statute) of covering all children younger than twenty-one (known as financially needy or "Ribicoff" children, named for Sen. Abraham Ribicoff, who sponsored the legislation making such coverage available) in families with incomes and resources below AFDC eligibility standards. (See Part Three for further discussion about state Medicaid programs.)

The 1981 federal limitations on working families' eligibility for Medicaid occurred simultaneously with cutbacks by employers in the amount of private health insurance benefits provided to families with children. Employer-subsidized health insurance is the primary source of health care financing for Americans younger than sixty-five. But children living in working families may lack coverage because the parent's employer does not offer insurance coverage at all or because family coverage is made available only at unaffordable rates. Lower-paid jobs are less likely to provide any insurance, even when insurance theoretically is available, employers of lower-paid workers are less likely to pay all or most of the premiums

TABLE 2.1

Insurance Status of Children Younger than 18 in Families, by Income[1], Race, and Insurance Status, U.S., 1986

Income as a percent of poverty	All Races			White			Black		
	Less Than 100%	Less Than 200%	All	Less Than 100%	Less Than 200%	All	Less Than 100%	Less Than 200%	All
Children in Families (in thousands)	12,715	26,355	62,745	8,070	18,836	50,934	4,129	6,560	9,606
Percentage of insured children by type of coverage[2]									
Medicaid alone or with other coverage	52.3%	30.3%	13.4%	47.2%	25.2%	9.9%	61.6%	43.8%	31.4%
Medicaid only	48.3%	26.8%	11.7%	42.9%	21.7%	8.4%	59.0%	40.7%	28.7%
Employer coverage	11.5%	33.6%	61.4%	13.4%	37.3%	65.9%	7.9%	23.6%	39.0%
VA, CHAMPUS, military[3]	2.2%	3.8%	3.9%	2.7%	4.3%	3.8%	—	1.4%	4.1%
Other health insurance	6.0%	7.1%	7.6%	7.7%	8.2%	8.2%	—	2.9%	4.4%
Percentage of children insured	67.6%	69.6%	81.1%	66.3%	69.6%	82.5%	69.9%	69.1%	73.6%
Percentage of children uninsured	32.4%	30.4%	18.9%	33.7%	30.4%	17.5%	30.1%	30.9%	26.4%

[1]Income measured as a percentage of the federal poverty level.

[2]Percentages may not equal 100 percent because some children have insurance from more than one source.

[3]The U.S. Department of Defense covers health care for members of the military and their dependents, including children, at military institutions and at civilian facilities.

SOURCE: Unpublished data from the U.S. Bureau of the Census. Calculations by Children's Defense Fund.

for dependent coverage. Table 2.3 shows the employer coverage status of children living in families and the proportion of families that report that an employer (or union) pays the full cost of coverage under their plan. In 1986 fewer than two out of five children with employer coverage lived in families that reported that the employer or union paid all premium costs.

Family income is a determinant not only of whether a child has employer coverage at all, but also of whether the employer plan pays all of the cost of the family's insurance premium. In 1986, 38.2 percent of all employer-insured children in working households were covered by a plan that reportedly paid all of the cost of coverage. However, only 27.3 percent of children in poor working households had such coverage. Employer subsidization of the cost of a family's plan thus is most commonly available for families that need the subsidy the least.

Employer subsidization of the cost of family coverage has been declining during the 1980s. Between 1980 and 1986, the proportion of medium-size and large firms (those most likely to offer coverage at all) paying the full cost of the annual premium for family health coverage declined to 35 percent, a nearly one-third drop below the 1981 level of 51 percent.[1] This change in employer-dependent subsidy practices, combined with the growing number of older children who still may be living with their families but who nonetheless can no longer be considered "dependents" under their parents' insurance plans, has swelled the ranks of uninsured children. The U.S. Congressional Research Service

TABLE 2.2

Insurance Status of Children Younger than 18 in Employed Families, by Income[1], Race, and Insurance Status, U.S., 1986

Income as a percent of poverty	All Races			White			Black		
	Less Than 100%	Less Than 200%	All	Less Than 100%	Less Than 200%	All	Less Than 100%	Less Than 200%	All
Children in Employed Families (in thousands)	8,294	21,422	57,583	5,751	16,138	48,040	2,229	4,560	7,587
Percentage of insured children by type of coverage[2]									
Medicaid alone or with other coverage	36.2%	19.6%	8.0%	34.2%	17.4%	6.5%	41.9%	26.9%	18.0%
Medicaid only	31.3%	15.8%	6.3%	29.2%	13.8%	5.0%	37.5%	22.7%	14.8%
Employer coverage	17.6%	41.3%	66.9%	18.8%	42.6%	69.8%	14.7%	33.9%	49.3%
VA, CHAMPUS, military[3]	1.4%	3.4%	3.5%	1.6%	3.6%	3.3%	—	1.7%	4.7%
Other health insurance	7.5%	7.9%	7.9%	9.1%	8.7%	8.3%	—	3.6%	5.1%
Percentage of children insured	58.0%	66.2%	80.9%	58.9%	67.4%	82.5%	56.4%	62.2%	70.7%
Percentage of children uninsured	42.0%	33.8%	19.1%	41.1%	32.6%	17.5%	43.6%	37.8%	29.3%

[1]Income measured as a percentage of the federal poverty level.

[2]Percentages may not equal 100 percent because some children have insurance from more than one source.

[3]The U.S. Department of Defense covers health care for members of the military and their dependents, including children, at military institutions and at civilian facilities.

SOURCE: Unpublished data from the U.S. Bureau of the Census. Calculations by Children's Defense Fund.

recently reported that virtually all of the growth in the number of uninsured Americans since 1980 is the result of declining employer-based coverage of dependents.[2]

Federal and state reforms since 1986 have liberalized Medicaid eligibility criteria for infants and preschool children somewhat. (See Part Three for details.) However, these expansions completely exclude poor children older than eight whose family incomes are above state AFDC levels, and all near-poor children older than one, even though children living in families with incomes between 100 and 200 percent of the federal poverty level are nearly as likely as poor children to be uninsured.

The absence of health insurance, public or private, therefore, is seen most clearly among children in low-income working families. These children are less likely to have access to employer-based family coverage than other children in working families, and yet are unlikely to be eligible for Medicaid. In 1986, 66.9 percent of all children living in working families had employer coverage (Table 2.2). However, only 17.6 percent of poor children in working families, and only 41.3 percent of children in working families with incomes less than 200 percent of the federal poverty level, had employer coverage. Despite the low rates of employer coverage, only 36.2 percent of children living in poor working families, and only 19.6 percent of children in working families with incomes less than 200 percent of the federal poverty level, had Medicaid coverage.

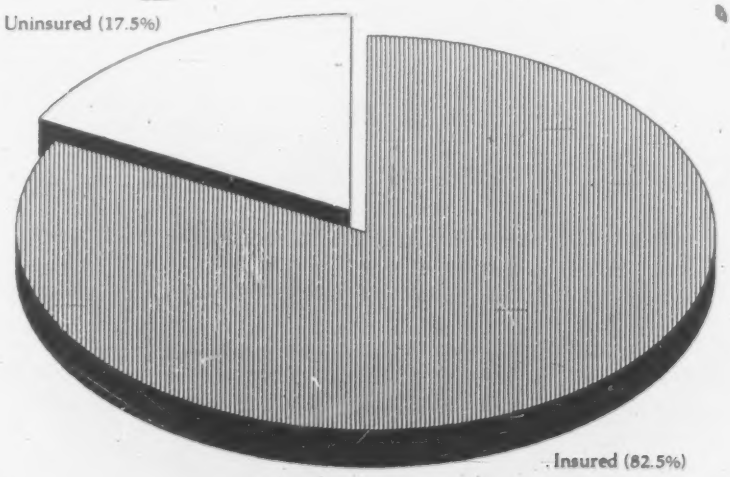
Race and Health Insurance Status

Regardless of family income or employment status, black children are less likely than white children to have employer coverage (Tables 2.1 and 2.2). As a result, black children in working families are more likely than white children to be completely uninsured, regardless of family income (Figures 2.1 and 2.2).

In 1986 black children, who were far more likely to live in poor families, were more than three times as likely as white children to have Medicaid coverage

FIGURE 2.1

White Children in Employed Families, by Insurance Status, 1986



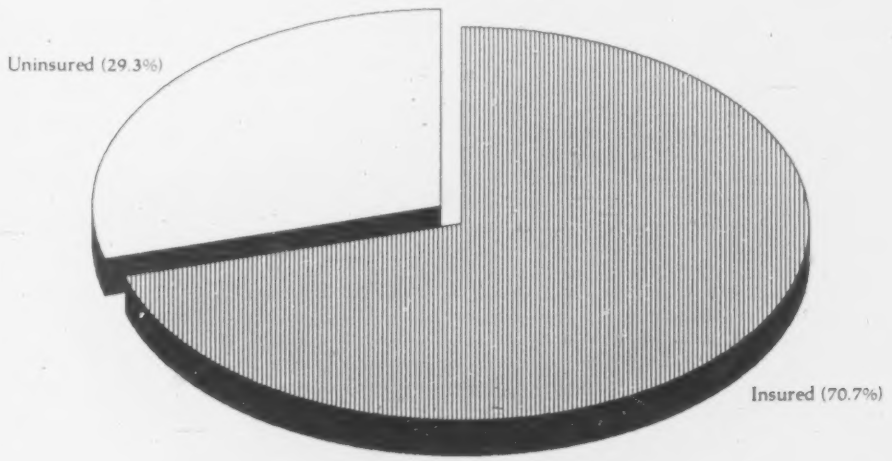
SOURCE: U.S. Bureau of the Census.

(31.4 percent versus 9.9 percent). They were only about 60 percent as likely to have employer-based coverage, however (39.0 percent versus 65.9 percent).

When only children in working households are considered, however, the proportion of black children with Medicaid coverage in 1986 dropped by nearly one-half, from 31.4 percent to 18.0 percent. The proportion of black children with employer-based coverage rose by only a little more than one-quarter, from 39.0 percent to 49.3 percent of all black children. As a result, three out of ten black children in employed families were wholly uninsured in 1986.

FIGURE 2.2

Black Children in Employed Families, by Insurance Status, 1986



SOURCE: U.S. Bureau of the Census.

Racial disparities in insurance coverage were most notable among children living in working families. While 29.3 percent of black children in employed families were completely uninsured in 1986, only 17.5 percent of white children were uninsured. Similarly, while 69.8 percent of white children in employed families had employer coverage, only 49.3 percent of black children had employer coverage.

The probable cause of this disparity in insurance status is that black children living in working families are more likely to fall into a given income range because they have two parents working at relatively low-wage jobs as opposed to one parent working for higher wages. Low-wage jobs are less likely to include family insurance coverage, or coverage with employer-paid premiums.

Insurance differentials have hidden impacts on family incomes. Families that appear to have equal levels of income may in fact have significantly different incomes, once the value of employer-paid contributions to family coverage (which are not treated as "income" in determining a person's relationship to the poverty level) is taken into account. Thus, the white children in moderate-income families who are better insured also in effect have additional income not available to black children through employer-paid family insurance premiums.

The racial disparity in fully paid employer health insurance can be seen in Table 2.3. In 1986, 39.4 percent of employer-insured white children lived in

TABLE 2.3

Percentage of Children in Families with Employer-Based Coverage with All Premiums Paid by Employer or Union, by Income[1], Age, and Race, U.S., 1986

	Total Number of Children With Employer-Based Coverage (in thousands)				Percentage of Children with All coverage Costs Paid by Employer or Union			
Income Level	Less Than 100%	Less Than 200%	Less Than 400%	All	Less Than 100%	Less Than 200%	Less Than 400%	All
All races								
Under age 6	593	3,345	9,571	13,125	28.2%	31.0%	34.8%	37.9%
Ages 6-17	863	5,503	17,610	25,415	26.8%	31.8%	36.1%	38.4%
Total	1,456	8,848	27,181	38,540	27.3%	31.5%	35.7%	38.2%
White								
Under age 6	468	2,773	8,330	11,533	29.7%	31.9%	35.9%	38.8%
Ages 6-17	611	4,256	14,925	22,018	33.4%	35.0%	37.7%	39.7%
Total	1,079	7,029	23,255	33,551	31.8%	33.8%	37.0%	39.4%
Black								
Under age 6	106	479	990	1,177	–	25.5%	26.3%	27.8%
Ages 6-17	221	1,067	2,166	2,567	—	20.2%	26.0%	27.6%
Total	327	1,546	3,156	3,744	—	21.9%	26.1%	27.6%

[1]Income measured as a percentage of the federal poverty level.

SOURCE: Unpublished data from the U.S. Bureau of the Census. Calculations by Children's Defense Fund.

families that reported an employer or union paid all premium costs. However, only 27.6 percent of employer-insured black children lived in families that reported fully paid coverage.

Insurance Coverage of Women of Childbearing Age

Insurance coverage for women of childbearing age is a serious problem, as well. According to the Alan Guttmacher Institute, in 1985, 9.5 million women ages fifteen to forty-four had no health insurance, public or private. This was 17 percent of the women in that age group. If women with private insurance that fails to include coverage for maternity care were included, more than 14 million women (or 25 percent) were completely unprotected against the cost of maternity care in 1985.[3] Among all women of childbearing age, those most likely to be uninsured in 1985 were either unemployed or working at low-wage jobs. As with black children, black women were more likely to be completely uninsured than their white counterparts.

Private health insurance is the primary source of coverage in this country, but large proportions of poor women are without private insurance. In 1985, 35 percent of all women ages fifteen to forty-four with incomes less than 100 percent of the poverty level had no private health insurance, compared with 11 percent of women with incomes at or more than 200 percent of the poverty level (Figure 2.3).

Health insurance status among pregnant women is related to prenatal care utilization. In 1980, 28.8 percent of privately insured women ages nineteen to

forty-four obtained reproductive care from obstetricians-gynecologists, compared with 18.9 percent of women with no insurance (Figure 2.4). Similarly, in 1982, 18.2 percent of white mothers and 24.0 percent of black mothers with no insurance received delayed prenatal care, compared with 5.8 percent of white women and 8.2 percent of black women with private insurance (Figure 2.5).

Utilization of Health Services

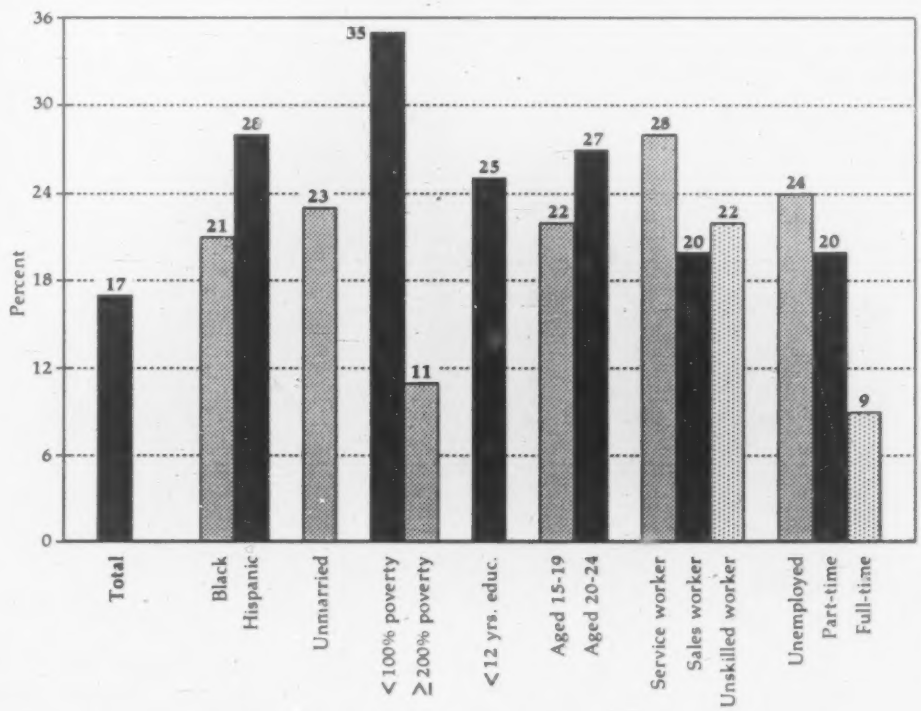
Poverty has a powerful influence on both insurance status and use of health services. The poor are less likely to have health insurance and are without the necessary cash resources to pay directly for necessary care.

Even when poor women and children are insured, they are far more dependent on public financing. This dependence has significant implications for their access to care. In 1986 all poor children were more than four times as likely to be insured by Medicaid as by employer-provided coverage, while poor children in working families were twice as dependent on Medicaid (Tables 2.1 and 2.2). Poor women also relied more heavily on Medicaid (Figure 2.4).

Many private health care providers either refuse to treat or avoid Medicaid recipients, or are not accessible to poor neighborhoods. Thus, poverty and poor families' greater dependence on public insurance in turn create a greater

FIGURE 2.3

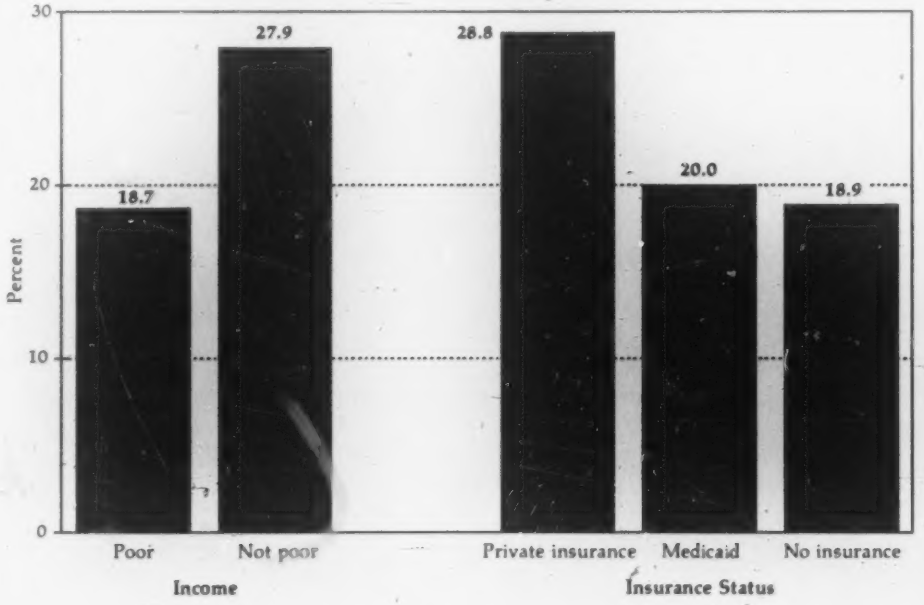
Percent of Women Ages 15-44 Without Private Health Insurance, by Selected Characteristics, 1985



SOURCE: Alan Guttmacher Institute.

FIGURE 2.4

Percent of Women 19-44 Years of Age Obtaining Reproductive Care from Obstetricians-Gynecologists, by Poverty Level and Insurance Coverage, U.S., 1980



SOURCE: National Center for Health Statistics.

dependence on publicly funded health care providers, such as community and migrant health centers, state and locally run health department programs, and public hospital clinics. As funding to develop and support public providers in underserved areas has fallen in real dollar terms (compared with inflation) in recent years, serious shortages of health services developed throughout the country.[4]

Prenatal Care Utilization

Rising poverty among young families, declining health insurance coverage, diminished support for public health programs, and a growing shortage of obstetrical providers have been associated with a significant erosion in prenatal care utilization in the 1980s.

National Findings

Early Prenatal Care: In 1986, 75.9 percent of all infants were born to women who began prenatal care in the first trimester of pregnancy (early prenatal care) (Table 1.1). This represents a decline from the 1985 level, when 76.2 percent of all births were to women who received early prenatal care. In contrast to continuous improvement in the 1970s, this is the third such decline in the 1980s (Table 4.8). The early prenatal care rate was 67.9 percent in 1970, peaked at 76.3 percent in 1980-1981, and fell to the lowest level in six years in 1986.

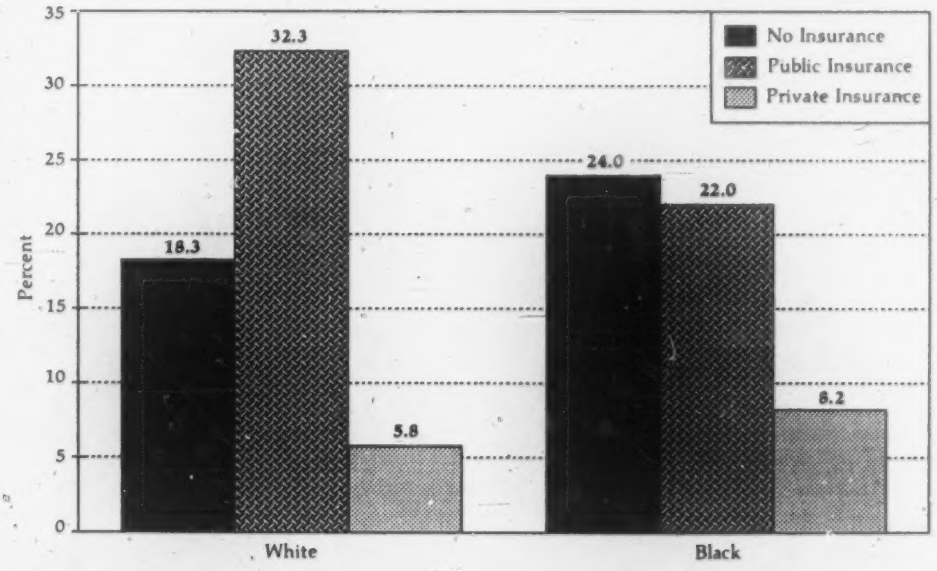
- Among blacks, only 61.6 percent of infants in 1986 were born with the benefit of early prenatal care—the same as in 1979. The early care rate among blacks has remained stagnant throughout the 1980s.
- While nearly one out of four births overall were to women who did not receive prenatal care in the first trimester, 47 percent of all births to women younger than twenty were to mothers who did not receive early care.

Late or No Prenatal Care: In 1986 about 150,000 infants were born to women who did not receive prenatal care until the final three months of pregnancy. Another 70,000 infants were born without the benefit of any prenatal care. It was the seventh year in a row in which the trend in late or no care worsened or showed no improvement at all (Figure 2.7).

- Overall, 6.0 percent of all births were to women with late or no care (Table 1.1). This represents an increase over 1985 levels, when 5.7 percent of all births were to women with late or no prenatal care. One in eight births to teenagers in 1986 was to a woman who had received late or no care.
- Among white women, the proportion of births to mothers receiving early care declined slightly in 1986, while the proportion to women receiving late or no care increased (Tables 4.8 and 4.9).
- The proportion of births to black women receiving late or no care increased for the fifth time since 1980 (Table 4.9 and Figure 2.8). By 1986, the proportion of births to black women receiving late or no prenatal care was 20 percent higher than the proportion of such births in 1980. One in ten black women received late or no prenatal care in 1986.

FIGURE 2.5

Percent of 20- to 44-Year-Old Women With Delayed Prenatal Care, by Insurance Status at the Time of Delivery and Race, 1982



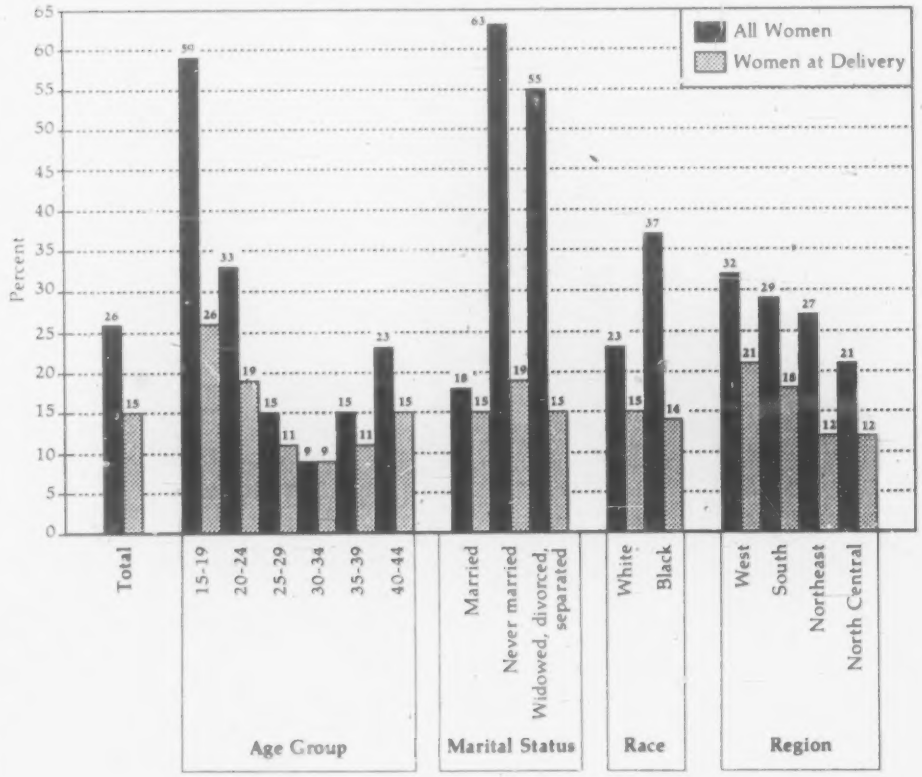
SOURCE: Fingerhut, L., Makuc, D., and Kleinman, J., "Delayed Prenatal Care and Place of First Visit: Differences by Health Insurance and Education," *Family Planning Perspectives* 19 (Sept./Oct. 1987).

The increase in births to women who received late or no prenatal care between 1985 and 1986 was largely due to an increase in the number and percentage of births to mothers who received no care at all. Among black infants, the proportion born to women who received no prenatal care rose from 3.4 to 4.0 percent, while the proportion who received late care was essentially unchanged. That increase reflects 4,000 more black infants born in 1986 than in 1985 without the benefit of any prenatal care.

The growing proportion of infants born to women who received no prenatal care at all during their pregnancies has implications for the strategies needed to improve prenatal care utilization. Numerous studies have shown that financial barriers are the most important obstacles both for women who receive care late in their pregnancies and women who receive no prenatal care. Surveys indicate that a large majority of women who received no prenatal care did attempt to access care, but were unsuccessful.[5] It is therefore vital that programs to reach these women include intensive case-finding and patient supports to help them overcome the numerous barriers they face.

FIGURE 2.6

Percent of Women Ages 15-44 Without Health Insurance for Maternity Care, and Percentage Without Coverage at Delivery, by Selected Characteristics, 1985



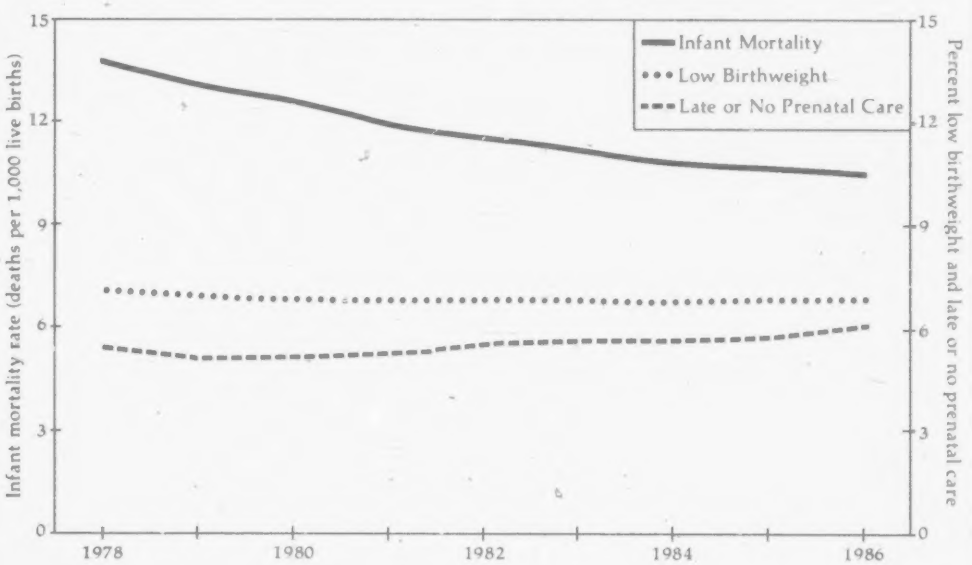
SOURCE: Alan Guttmacher Institute.

The Adequacy of Care: "Early" and "late or no" care indicators are measures only of the timing of entry into prenatal care. They do not take into account the number of visits received or the continuity of care. They therefore tend to overstate the adequacy of care obtained. For example, a pregnant woman who seeks care in the second month of pregnancy would be classified as having begun care early, even if she did not return to the physician until the last month of pregnancy because she had no way to pay for an adequate number of prenatal visits.

One measure of both the timing and quantity of prenatal care received is the Kessner Index (described in Technical Notes). This index and other indexing systems measure adequacy by relating the timing of entry into care to the number of prenatal visits and the length of the pregnancy (gestational age of the

FIGURE 2.7

Infant Mortality, Low Birthweight, and Late and No Prenatal Care, All Races, U.S., 1978-1986



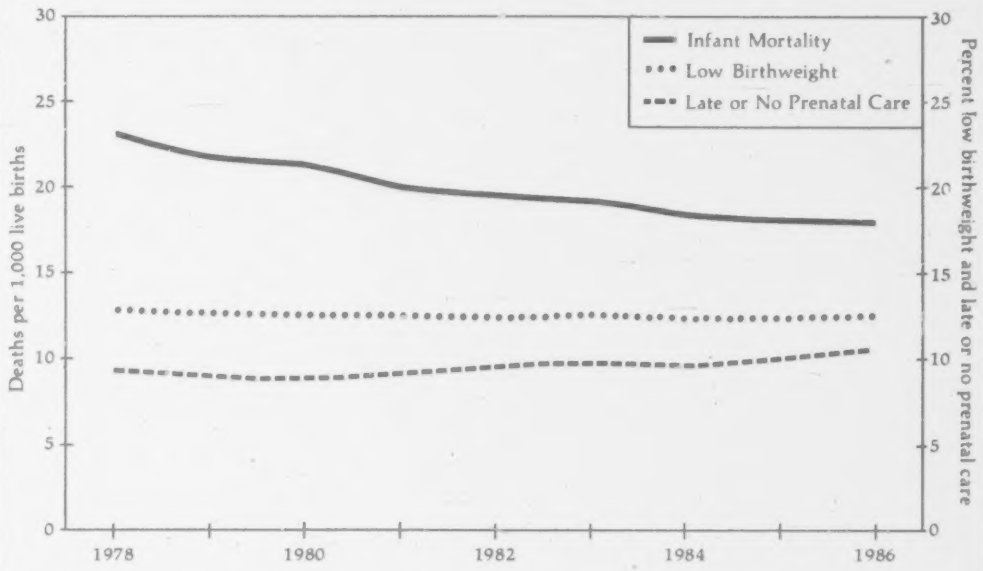
SOURCE: National Center for Health Statistics.

infant). Although these systems also have limitations, they provide a more refined indication of the adequacy of prenatal care utilization.

While 75.9 percent of all births in 1986 were to women who began care early in pregnancy, only 68.1 percent of births that year were to women whose care could be considered even minimally adequate (Table 1.1). Similarly, while 6.0 percent of all births were to women who received late or no care, 8.0 percent of all births were to women whose care was inadequate in terms of both timing and frequency. A slightly higher proportion of births in 1986 than in 1985 were to women receiving adequate care. However, the percentage of births to women receiving inadequate care also increased slightly between 1985 and 1986.

FIGURE 2.8

Infant Mortality, Low Birthweight, and Late or No Prenatal Care, Black, U.S., 1978-1986



SOURCE: National Center for Health Statistics.

State Findings

Early Prenatal Care and Adequate Prenatal Care: In every state in 1986, the percentage of babies born to mothers who received adequate prenatal care was lower than the percentage born to women who received care early in pregnancy. This reflects the fact that some women who seek care early do not receive continuous care. Many women may be unable to obtain prenatal care throughout their pregnancies or to afford a sufficient number of visits. In some states, the proportion of women who received adequate care was substantially smaller than the percentage of women who entered prenatal care early (Table 2.4A). For example, in North Dakota 82.1 percent of births were to women with early care but only 65.0 percent received adequate care. This pattern may indicate a significant problem in continuity of care for women in these states.

The pattern is even more pronounced for blacks. In every state with more than a handful of black births, the gap between the proportion of women who entered care early and the percentage of women who received adequate care was greater for blacks than for whites. In Illinois 65 percent of black births were to mothers who had early prenatal care but only 48.8 percent had adequate care. In contrast, the gap was only 8 percentage points for whites. In Louisiana the gap between early and adequate care among black births was even greater than in Illinois. Only 49.1 percent of Louisiana's black infants were born to mothers who had adequate prenatal care although 67.7 percent of black women entered care early.

States with large Native American populations also experience this problem. In South Dakota, where nearly all nonwhite births are to Native Americans, 53.3 percent of all nonwhite infants had early care but only 37.0 percent had adequate care. Many of the nonwhite women who began care early

TABLE 2.4A

Prenatal Care by Timing of Entry into Care and Adequacy and Low Birthweight, All Races, 1986

State	Early Care		Late or No Care		Adequate Care		Low Birthweight	
	Percent	Rank	Percent	Rank	Percent	Rank	Percent	Rank
Alabama	73.2	41	6.5	40	66.3	36	8.0	46
Alaska	77.2	31	4.3	21	67.4	32	4.6	1
Arizona	71.6	43	8.2	46	62.5	41	6.2	18
Arkansas	69.5	46	6.9	43	61.7	44	7.6	41
California	75.4	35	5.7	36	—	—	6.0	17
Colorado	77.6	26	5.2	31	71.2	19	7.7	43
Connecticut	85.8	1	3.3	11	80.2	2	6.6	23
Delaware	78.2	23	3.9	15	68.2	30	7.4	37
District of Columbia	59.3	50	11.4	49	50.0	50	12.2	51
Florida	68.4	47	8.6	47	62.0	42	7.6	40
Georgia	73.5	40	6.4	39	67.3	33	8.1	47
Hawaii	77.5	27	5.1	30	66.5	35	6.9	29
Idaho	76.1	32	5.3	33	69.3	25	5.2	7
Illinois	78.4	22	4.6	23	68.6	28	7.4	39
Indiana	77.3	29	5.3	32	70.8	22	6.4	20
Iowa	85.7	2	2.2	1	80.5	1	5.2	10
Kansas	81.2	13	3.9	14	76.2	8	6.2	19
Kentucky	75.6	34	4.9	27	69.0	27	7.1	35
Louisiana	78.6	21	4.7	25	66.7	34	8.6	49
Maine	83.1	6	2.2	2	76.7	7	5.1	5
Maryland	80.3	15	4.0	17	75.3	11	7.7	42
Massachusetts	84.0	4	2.8	6	79.5	4	5.8	15
Michigan	80.4	14	3.4	12	76.0	9	6.9	31
Minnesota	80.0	17	3.8	13	71.4	18	5.1	3
Mississippi	76.0	33	4.1	19	69.4	24	8.7	50
Missouri	80.0	18	4.3	22	74.4	12	6.8	25
Montana	77.3	30	4.7	26	69.0	26	5.9	16
Nebraska	81.6	11	3.2	8	74.1	13	5.5	14
Nevada	73.7	39	6.5	41	65.6	37	7.4	38
New Hampshire	83.7	5	2.6	3	79.6	3	5.2	9
New Jersey	81.3	12	5.0	29	72.1	16	6.8	26
New Mexico	58.4	51	13.3	51	50.2	49	7.1	34
New York	71.7	42	10.2	48	60.4	46	7.3	36
North Carolina	77.7	25	4.6	24	73.6	14	7.9	44
North Dakota	82.1	9	2.7	5	65.0	38	4.9	2
Ohio	82.2	8	3.3	10	76.0	10	6.7	24
Oklahoma	71.5	44	7.3	44	62.9	40	6.5	22
Oregon	73.9	38	6.4	38	68.0	31	5.1	4
Pennsylvania	78.0	24	5.3	34	69.9	23	6.9	30
Rhode Island	85.4	3	2.6	4	78.2	5	6.4	21
South Carolina	67.3	48	8.1	45	57.6	48	8.6	48
South Dakota	74.1	37	5.7	37	63.8	39	5.3	11
Tennessee	75.2	36	5.5	35	68.3	29	7.9	45
Texas	66.8	49	11.5	50	57.8	47	6.8	28
Utah	82.0	10	3.1	7	71.2	20	5.4	13
Vermont	78.9	20	4.2	20	60.5	45	5.2	6
Virginia	80.1	16	4.0	18	72.8	15	7.0	33
Washington	77.4	28	4.9	28	72.0	17	5.2	8
West Virginia	70.6	45	6.9	42	61.9	43	7.0	32
Wisconsin	82.8	7	3.2	9	77.5	6	5.4	12
Wyoming	80.0	19	3.9	16	71.1	21	6.8	27
United States	75.9	—	6.0	—	68.4	—	6.8	—

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

TABLE 2.4B

Prenatal Care by Timing of Entry into Care and Adequacy and Low Birthweight, White, 1986

State	Early Care		Late or No Care		Adequate Care		Low Birthweight	
	Percent	Rank	Percent	Rank	Percent	Rank	Percent	Rank
Alabama	80.6	28	4.8	35	75.9	18	6.0	39
Alaska	80.6	27	3.3	21	71.9	34	3.9	1
Arizona	73.7	48	7.5	49	64.9	46	6.0	41
Arkansas	74.6	45	5.4	41	68.2	40	6.3	44
California	75.9	43	5.6	42	—	—	5.2	15
Colorado	78.4	37	4.9	37	72.3	31	7.3	51
Connecticut	88.6	1	2.5	9	83.9	1	5.6	25
Delaware	83.0	17	2.7	11	73.1	28	6.0	38
District of Columbia	79.3	32	4.9	38	73.7	25	5.0	7
Florida	74.1	47	6.9	47	67.8	41	6.0	35
Georgia	80.2	29	4.8	36	74.9	20	6.0	36
Hawaii	82.6	21	3.1	20	74.6	21	5.4	20
Idaho	76.4	41	5.2	40	69.6	36	5.1	12
Illinois	82.2	24	3.5	25	74.2	23	5.5	22
Indiana	79.5	31	4.5	33	73.3	27	5.7	28
Iowa	86.2	4	2.1	2	81.2	3	5.0	8
Kansas	83.1	16	3.3	23	78.4	13	5.6	23
Kentucky	77.0	39	4.5	34	70.5	35	6.5	46
Louisiana	85.9	5	2.8	15	78.7	10	5.8	31
Maine	83.3	15	2.2	3	76.9	16	5.1	10
Maryland	86.4	3	2.3	5	82.1	2	5.5	21
Massachusetts	85.6	6	2.4	7	81.1	4	5.3	16
Michigan	82.9	19	2.7	12	78.5	12	5.4	19
Minnesota	82.0	25	2.9	18	73.4	26	4.7	3
Mississippi	84.9	8	2.5	8	80.9	6	6.0	40
Missouri	82.3	22	3.6	26	77.4	15	5.7	27
Montana	79.9	30	3.5	24	72.8	30	5.9	34
Nebraska	82.9	20	2.8	16	75.7	19	5.2	14
Nevada	76.0	42	5.6	43	68.2	39	6.6	47
New Hampshire	83.9	13	2.6	10	79.8	9	5.2	13
New Jersey	84.8	9	3.8	29	76.5	17	5.4	18
New Mexico	60.1	51	12.4	51	52.0	50	7.2	50
New York	77.7	38	7.1	48	67.2	43	5.8	30
North Carolina	83.9	12	2.8	17	80.7	7	6.1	43
North Dakota	83.8	14	2.0	1	67.0	44	4.7	4
Ohio	84.4	10	2.7	13	78.5	11	5.7	29
Oklahoma	75.6	44	5.9	44	67.6	42	5.9	33
Oregon	74.6	46	6.1	45	68.9	38	5.0	9
Pennsylvania	82.3	23	3.6	27	74.3	22	5.6	26
Rhode Island	87.4	2	2.2	4	80.5	8	6.0	37
South Carolina	76.5	40	5.1	39	66.7	45	6.1	42
South Dakota	78.5	36	3.3	22	69.2	37	4.9	6
Tennessee	78.7	35	4.5	32	73.1	29	6.5	45
Texas	68.4	50	11.1	50	59.6	49	5.9	32
Utah	83.0	18	2.8	14	72.3	32	5.3	17
Vermont	79.0	33	4.2	30	60.7	48	5.1	11
Virginia	84.3	11	3.1	19	77.6	14	5.6	24
Washington	78.8	34	4.4	31	73.7	24	4.8	5
West Virginia	71.3	49	6.5	46	62.7	47	6.8	49
Wisconsin	85.5	7	2.4	6	81.1	5	4.7	2
Wyoming	80.6	26	3.7	28	72.2	33	6.8	48
United States	79.2	—	5.0	—	72.6	—	5.6	—

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

TABLE 2.4C

Prenatal Care by Timing of Entry into Care and Adequacy and Low Birthweight, Black, 1986

State	Early Care		Late or No Care		Adequate Care		Low Birthweight	
	Percent	Rank	Percent	Rank	Percent	Rank	Percent	Rank
Alabama	59.0	36	9.9	25	47.8	36	11.9	15
Alaska	71.6	6	6.5	7	62.9	9	8.0	2
Arizona	66.3	22	10.2	26	55.9	22	11.2	9
Arkansas	52.7	46	12.0	29	40.2	47	12.0	18
California	69.0	10	6.9	10	—	—	11.9	16
Colorado	67.7	17	8.1	16	58.6	16	14.4	43
Connecticut	66.9	21	8.4	19	55.2	23	12.9	36
Delaware	63.0	31	7.6	14	52.3	30	12.1	21
District of Columbia	56.0	42	12.6	32	45.9	41	14.2	42
Florida	50.5	50	14.1	37	44.0	43	12.7	34
Georgia	61.1	35	9.2	22	52.9	26	12.1	23
Hawaii	83.4	1	—	—	74.4	1	8.0	1
Idaho	76.0	3	—	—	73.0	3	—	—
Illinois	65.0	26	8.2	17	48.8	34	14.2	41
Indiana	56.6	40	12.5	31	46.7	39	11.9	14
Iowa	74.6	4	4.5	1	64.5	6	12.1	22
Kansas	68.1	14	7.3	11	59.9	13	12.0	17
Kentucky	62.9	32	8.4	18	54.5	24	12.5	28
Louisiana	67.6	18	7.5	12	49.1	33	12.9	35
Maine	68.0	15	—	—	64.4	7	—	—
Maryland	66.9	20	7.6	13	59.9	12	12.6	32
Massachusetts	69.0	9	6.4	6	64.0	8	10.8	7
Michigan	69.7	7	6.4	5	65.3	5	13.9	39
Minnesota	58.8	37	12.4	30	52.2	31	13.1	37
Mississippi	65.9	23	5.8	2	56.5	21	11.7	12
Missouri	67.9	16	8.0	15	58.5	18	12.6	29
Montana	55.4	43	—	—	—	—	—	—
Nebraska	68.4	12	5.9	3	57.5	19	11.2	8
Nevada	57.2	38	13.0	34	47.0	37	14.0	40
New Hampshire	72.7	5	—	—	67.8	4	—	—
New Jersey	66.9	19	9.9	24	53.8	25	12.7	33
New Mexico	51.5	48	15.4	39	45.3	42	8.9	3
New York	51.1	49	21.2	41	37.7	48	12.6	30
North Carolina	63.5	29	8.6	21	57.4	20	12.2	25
North Dakota	80.0	2	—	—	73.7	2	—	—
Ohio	68.9	11	6.6	8	60.4	11	12.1	24
Oklahoma	56.8	39	13.1	35	46.0	40	11.4	11
Oregon	62.1	34	11.3	28	52.7	27	10.0	5
Pennsylvania	52.7	47	15.4	40	42.9	45	13.9	38
Rhode Island	69.6	8	5.9	4	59.7	14	12.1	19
South Carolina	53.0	45	12.8	33	43.2	44	12.4	27
South Dakota	62.2	33	—	—	52.6	29	—	—
Tennessee	64.0	28	8.6	20	52.6	28	12.6	31
Texas	56.4	41	14.0	36	46.9	38	12.3	26
Utah	64.4	27	—	—	52.0	32	9.3	4
Vermont	—	—	—	—	—	—	—	—
Virginia	68.1	13	6.7	9	59.3	15	11.3	10
Washington	65.5	25	11.0	27	58.5	17	10.7	6
West Virginia	54.2	44	15.3	38	42.7	46	11.8	13
Wisconsin	63.3	30	9.8	23	47.9	35	12.1	20
Wyoming	65.9	24	—	—	62.0	10	—	—
United States	61.6	—	10.6	—	50.6	—	12.5	—

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

TABLE 2.4D

Prenatal Care by Timing of Entry into Care and Adequacy and Low Birthweight, Nonwhite, 1986

State	Early Care		Late or No Care		Adequate Care		Low Birthweight	
	Percent	Rank	Percent	Rank	Percent	Rank	Percent	Rank
Alabama	59.3	37	9.8	31	48.2	36	11.8	32
Alaska	69.5	9	6.6	9	57.2	18	6.2	2
Arizona	60.4	36	12.1	35	49.3	32	7.0	7
Arkansas	53.3	48	11.8	33	40.9	48	11.7	30
California	73.5	5	6.1	5	—	—	8.8	14
Colorado	68.9	11	7.8	16	60.3	11	12.0	36
Connecticut	68.7	14	7.9	17	57.6	17	12.2	40
Delaware	63.8	30	7.4	13	53.3	26	11.7	29
District of Columbia	55.4	44	12.7	38	45.4	40	13.6	48
Florida	51.6	50	13.8	41	45.0	41	12.4	42
Georgia	61.5	35	9.1	26	53.3	25	11.9	35
Hawaii	75.8	1	5.7	2	63.8	6	7.3	10
Idaho	68.6	16	8.0	20	63.2	7	7.3	9
Illinois	65.9	25	7.9	19	50.1	30	13.6	47
Indiana	58.2	40	11.9	34	48.6	34	11.5	25
Iowa	74.8	3	4.9	1	65.2	5	10.2	19
Kansas	67.6	21	7.6	15	59.5	13	10.7	21
Kentucky	63.5	32	8.2	21	55.0	23	12.1	38
Louisiana	68.1	19	7.4	14	49.5	31	12.6	44
Maine	74.6	4	—	—	65.3	4	—	—
Maryland	68.2	18	7.3	12	61.5	8	12.0	37
Massachusetts	70.9	6	6.0	4	66.4	2	9.5	16
Michigan	70.2	7	6.2	6	65.7	3	13.1	45
Minnesota	55.8	42	14.0	42	46.5	37	9.2	15
Mississippi	66.0	24	5.8	3	56.6	20	11.6	27
Missouri	68.4	17	7.9	18	59.1	14	12.2	39
Montana	58.8	38	13.1	39	42.5	46	5.4	1
Nebraska	66.9	22	7.2	11	56.1	22	9.5	17
Nevada	63.7	31	10.8	32	54.0	24	11.3	23
New Hampshire	75.7	2	—	—	73.1	1	—	—
New Jersey	69.0	10	9.1	27	56.5	21	11.8	33
New Mexico	50.3	51	17.9	46	42.1	47	6.4	3
New York	53.6	46	19.5	47	40.1	49	11.7	28
North Carolina	64.1	29	8.4	22	58.1	16	11.8	34
North Dakota	66.1	23	8.6	24	46.0	39	6.5	5
Ohio	69.8	8	6.4	7	61.4	9	11.8	31
Oklahoma	57.3	41	12.3	36	46.2	38	8.5	13
Oregon	65.5	26	9.2	28	56.9	19	6.5	4
Pennsylvania	54.2	45	14.8	44	44.3	44	13.3	46
Rhode Island	68.8	13	6.6	10	58.9	15	10.2	18
South Carolina	53.3	49	12.6	37	43.6	45	12.3	41
South Dakota	53.3	47	17.2	45	37.0	50	7.1	8
Tennessee	64.3	28	8.5	23	53.1	27	12.4	43
Texas	58.4	39	13.4	40	48.7	33	11.6	26
Utah	65.2	27	9.7	30	53.0	28	6.8	6
Vermont	62.8	33	—	—	44.6	42	—	—
Virginia	68.9	12	6.5	8	59.8	12	10.9	22
Washington	67.6	20	8.9	25	60.4	10	7.9	12
West Virginia	55.6	43	14.4	43	44.3	43	11.3	24
Wisconsin	61.9	34	9.4	29	48.3	35	10.4	20
Wyoming	68.7	15	—	—	50.8	29	7.8	11
United States	63.7	—	9.9	—	51.8	—	11.2	—

SOURCE: National Center for Health Statistics. Calculations by Children's Defense Fund.

had inadequate care in terms of frequency of visits. Considered in conjunction with South Dakota's extremely high infant mortality and postneonatal mortality among all nonwhites, this may indicate potentially severe access and continuity of care problems for South Dakota's Native American mothers and infants.

Early and adequate prenatal care was a particular problem in a number of states.

- In 1986 a baby born in New Mexico was only two-thirds as likely as one born in Connecticut to have a mother who received early prenatal care. Nearly two in five births in the District of Columbia and New Mexico, and one in three in Texas, were to women who received care only after the first trimester (Table 2.4A).
- In Arkansas, Florida, New Mexico, New York, Pennsylvania, South Carolina, and West Virginia, nearly half of black births were to mothers who received delayed care (Table 4.21C).
- In Arkansas, Florida, New Mexico, New York, Pennsylvania, South Carolina, and South Dakota, nearly half of all nonwhite births were to mothers who received delayed care (Table 4.21D).
- Among infants born to teens in the District of Columbia and New Mexico, less than 40 percent in 1986 were to mothers who began prenatal care early in pregnancy (Table 4.30A).
- In Florida, New Mexico, New York, Oregon, South Carolina, Texas, and West Virginia, more than half of all births to white teens were to women who did not receive prenatal care early in pregnancy (Table 4.30B).
- In Arkansas, the District of Columbia, Florida, Nevada, New York, Pennsylvania, South Carolina, Texas, and West Virginia, less than 40 percent of all black births were to teens who received early care (Table 4.30C).
- In Arkansas, the District of Columbia, Florida, New Mexico, New York, Pennsylvania, South Carolina Texas, and West Virginia, less than 40 percent of all nonwhite births were to teens who had received early care (Table 4.30D).

Prenatal Care and Low Birthweight: Early and adequate prenatal care is strongly related to reduced risk of low birthweight. The continuity of prenatal care is important in improving birthweight. Early care alone is not enough. Both the frequency of visits and the timing of care affect an infant's chances of low birthweight. In addition, prenatal care has the greatest effect on low-birthweight reduction among the highest risk women, whether the risk derives from medical or socioeconomic factors. Unfortunately, the most socially at-risk women are the least likely to be able to obtain prenatal care.[6]

The relationship between birthweight and prenatal care is reflected in the states' similar rankings for prenatal care utilization and low birthweight. For example, in 1986 the District of Columbia and South Carolina had among the poorest rankings for early prenatal care, late or no care, adequate care, and low birthweight. Similarly, Maine and Iowa ranked among the best states in prenatal care utilization and low birthweight.

This pattern is weaker in states with high proportions of Hispanic and Native American births. In 1986 Arizona, New Mexico, Oklahoma, and Texas had among the worst prenatal care records, but experienced low-birthweight rates near the national average. This may occur because a smaller proportion of Hispanic and Native American infants are born at low birthweight (Table 2.5). Some studies suggest that cultural factors, such as diet and family support, and medical factors, such as increased risk of diabetes, may explain why Hispanics and Native Americans are at lesser risk of low birthweight.

Poor prenatal care utilization in these states is extremely disturbing nonetheless because prenatal care plays an important role in improving the health

TABLE 2.5

Prenatal Care Utilization and Birth Outcome for Infants Born to Hispanic and Non-Hispanic Mothers, U.S.[1], 1986

	Hispanic						Non-Hispanic		
	Total	Mexican	Puerto Rican	Cuban	Central & South American	Other & Unknown Hispanic	Total[2]	White	Black
Percent of babies born to mothers who received early prenatal care	60.3	58.9	57.2	81.8	58.8	66.6	77.1	81.6	60.6
Percent of babies born to mothers who received late or no prenatal care	13.0	13.4	17.4	4.2	13.8	9.0	5.6	4.1	11.3
Percent of babies born at low birthweight	6.1	5.6	9.2	5.5	5.7	6.9	7.0	5.6	12.7
Percent of babies born prematurely[3]	10.8	10.7	12.4	9.5	10.0	10.6	10.0	8.1	17.8

[1]Total of 23 reporting states and the District of Columbia.

[2]Includes races other than white and black.

[3]Data for 22 reporting states and the District of Columbia. Excludes data for New Mexico, which does not report first day of last normal menstrual period.

SOURCE: National Center for Health Statistics.

of mothers and infants far beyond its contribution to reducing low birthweight. Through prenatal care, medical and social problems that affect pregnancy outcomes can be detected and treated. Mothers who receive inadequate prenatal care are likely to face more difficulties obtaining care for their infants. The absence of prenatal care for Hispanic and Native American women may indicate a lack of access to primary care, such as immunizations, for Hispanic and Native American infants.

Prenatal Care Trends: In many states the percentage of women receiving early prenatal care was lower in 1986 than in 1985. In some states the proportion receiving early care was lower in 1986 than in 1978. In others the proportion of births to mothers receiving late or no care was higher in 1986 than in 1985 (Tables 4.15A-D).

States with especially troubling records exhibited the following: an adverse trend between 1985 and 1986; an adverse trend between 1978 and 1986; a 1986 late or no care rate higher than the 1978-1986 average; and a worsening trend from the early to the later years of the 1978-1986 period. Using these criteria, states with especially serious late and no prenatal care trends for the 1978-1986 period are:

- For all races, fifteen states: California, Indiana, Massachusetts, Missouri, Montana, Nevada, New York, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont, Washington, and Wisconsin.

- For white infants, fourteen states: Connecticut, Indiana, Massachusetts, Montana, Nevada, New York, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Vermont, and Washington.
- For black infants, fifteen states: California, Colorado, Kansas, Massachusetts, Maryland, Minnesota, Missouri, Nevada, New York, Oklahoma, Oregon, Texas, Washington, Wisconsin, and West Virginia.
- For all nonwhite infants, nine states: Kansas, Massachusetts, Montana, Nevada, Oregon, Pennsylvania, Washington, Wisconsin, and West Virginia.

Use of Health Services by Children

National statistics reveal significant differences between poor and non-poor children in utilization of important health services (Table 2.6).

- More than one in five of the nation's poorest children, compared with one in seven high-income children, had no physician contact in 1986.
- Low-income children were more than three times as likely as affluent children in 1982 never to have received a preventive health examination.
- In 1986 black children were reported as one-third more likely than white children to have no physician contact.

TABLE 2.6

Child Health Utilization by Race and Annual Income

		Race/Ethnicity[1]			Income	
	All	White	Black	Hispanic	Less Than $10,000	More Than $35,000
Percent of children under age 17 who have not had a physician contact in a year, 1986	—	18.6	25.1	—	22.1	14.1
Percent of children under age 17 who have not had a routine physical in a year, 1982	34.6	35.6	28.8	34.5	32.3	30.0
Percent of children under age 17 who have never had a routine physical examination, 1982	3.6	3.5	4.2	9.2	5.4	1.6
Percent of 3- to 16-year-olds who have not had a vision examination in a year, 1982	38.2	37.2	42.1	41.6	40.6	34.0
Percent of 5- to 11-year-olds who have not had a dental visit in a year, 1986	28.3	25.7	41.3	40.6	43.4	13.2
Percent of 5- to 11-year-olds who have never had a dental visit, 1986	11.4	10.2	16.9	20.3	17.4	4.6
Percent of 12- to 17-year-olds who have not had a dental visit in a year, 1986	28.8	25.9	44.3	40.6	42.5	13.8
Percent of 12- to 17-year-olds who have never had a dental visit, 1986	3.4	2.7	7.0	8.9	5.0	—

[1]Hispanics may be of any race. Statistics shown for white and black children include Hispanic children.

SOURCE: National Center for Health Statistics, National Health Interview Survey.

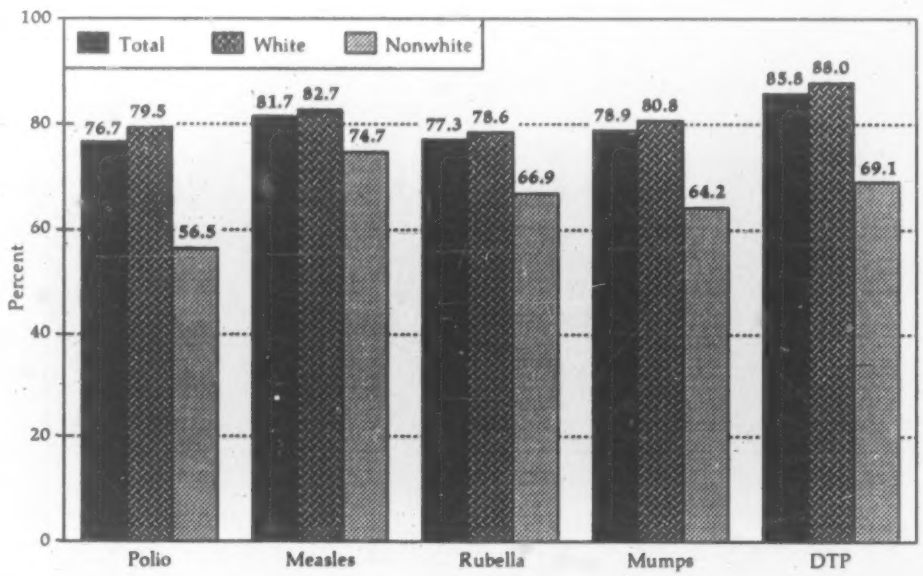
- In 1982, 38.2 percent of all children ages three to sixteen had not had a vision examination in a year.
- Despite the fact that all children older than three should see a dentist at least once annually, one in nine children ages five to eleven had never seen a dentist in 1986.
- Black elementary-school-aged children are 60 percent more likely than white children not to have had a dental visit within the past year.
- The poorest children between the ages of five and eleven are three times as likely as the most affluent children never to have visited a dentist.
- Among teens, 44 percent of blacks did not have a dental visit in a year, compared with 26 percent of whites. Twelve- to seventeen-year-old blacks are more than two and a half times as likely as whites to never have had a dental visit.

Children's Immunization Status

A child's immunization status is an important measure not only of vulnerability to childhood disease but also of access to basic medical care. Concurrent with the erosion of public health programs and the growth in the number of children without health insurance during the 1980s, the proportion of preschool-aged children inadequately immunized against major childhood diseases grew. The youngest children, infants and toddlers, were most affected.

FIGURE 2.9

Percent of Two-Year-Olds Who Were Fully Immunized, by Race, U.S., 1985



SOURCE: Centers for Disease Control, U.S. Immunization Survey.

Unfortunately, no data were collected after 1985 because the Reagan Administration ended the U.S. Immunization Survey.

- In 1985 the proportion of infants younger than one with at least one dose of polio or diphtheria, tetanus, and pertussis (DTP) vaccine was lower than in 1980 (Table 2.7). Among all nonwhite infants, the proportion receiving at least one dose of polio vaccine fell by more than 20 percent, while the proportion receiving at least one dose of DTP vaccine fell nearly as sharply.
- Because the 1985 DTP immunization status of children who had reached age one showed some improvement over 1980, it appears that some children may have delayed immunizations and "caught up" later. This places many infants at unnecessary risk for preventable disease.

TABLE 2.7

Percentage of Infants and Toddlers Who Were Fully Immunized[1], by Age and Race, U.S.[2], 1980 and 1985

Infants						
		Polio	**DTP[3]**	**Measles**	**Mumps**	**Rubella**
Total	1980	80.0	84.2			
	1985	79.6	82.7	These vaccines are not recommended for children of this age.		
White	1980	80.9	84.9			
	1985	81.5	84.4			
Nonwhite	1980	73.2	79.0			
	1985	58.5	64.8			
Age one						
		Polio	**DTP**	**Measles**	**Mumps**	**Rubella**
Total	1980	95.5	76.2			
	1985	95.2	78.3	These vaccines are not recommended for children of this age.		
White	1980	96.2	78.6			
	1985	96.9	80.1			
Nonwhite	1980	89.1	56.5			
	1985	82.3	64.9			
Age two						
		Polio	**DTP**	**Measles**	**Rubella**	**Mumps**
Total	1980	80.7	87.0	83.0	83.2	80.2
	1985	76.7	85.8	81.7	77.3	78.9
White	1980	83.0	89.4	84.8	84.4	81.5
	1985	79.5	88.0	82.7	78.6	80.8
Nonwhite	1980	62.8	68.0	69.0	73.4	70.7
	1985	56.5	69.1	74.7	66.9	64.2

[1]Dosage levels are approximations of levels needed to fully immunize a child of a given age: younger than age one, one or more doses of polio and DTP; at age one, one or more doses of polio and three or more doses of DTP; and at age two, three or more doses of polio and DTP and one dose of measles, rubella, and mumps vaccines.

[2]Data are from the U.S. Immunization Survey sample confirmed by parent consultation with an immunization record.

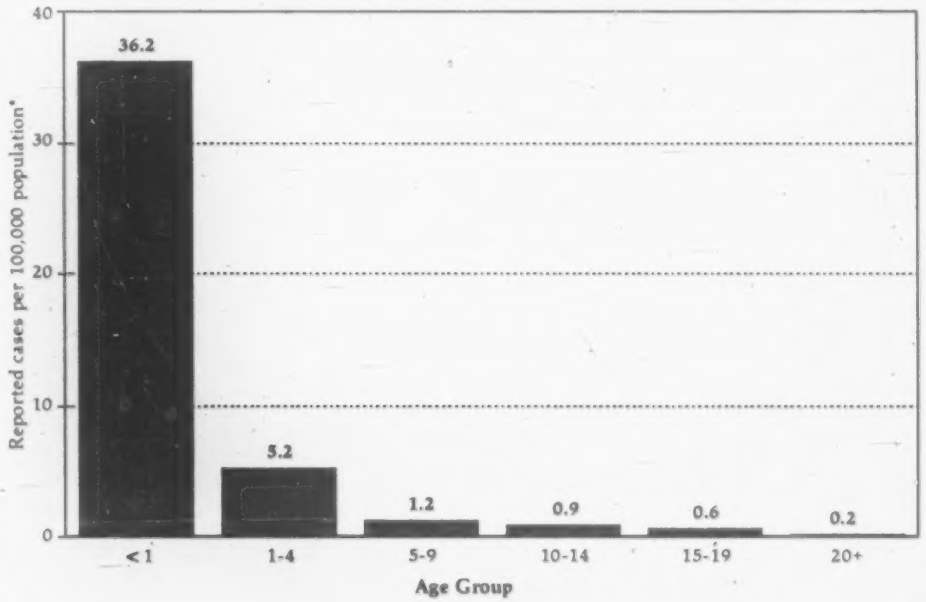
[3]DTP stands for a combined dose of diphtheria, tetanus, and pertussis vaccines.

SOURCE: U.S. Immunization Survey, Centers for Disease Control.

- Two-year-olds experienced erosion in immunization status in the case of polio, measles, rubella, mumps, and DTP for all races combined and among whites. For all nonwhites similar erosion occurred in the case of polio, rubella, and mumps. The overall pattern indicates a significant decrease in the immunization status of two-year-olds (Figure 2.9).

FIGURE 2.10

Pertussis (Whooping Cough), by Age Group, U.S., 1987



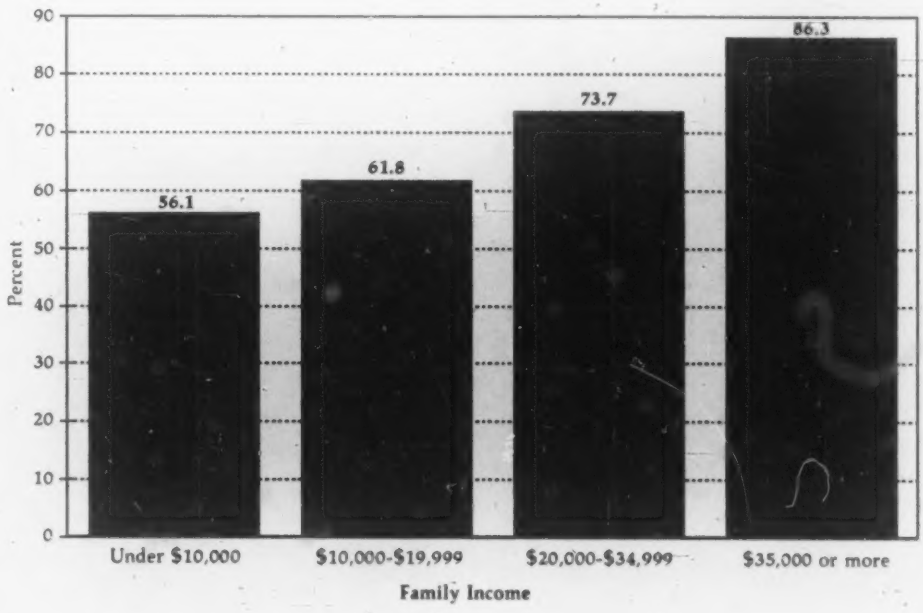
*Rates were calculated by multiplying the percentage of cases with known age group by total reported cases and dividing by the population in that age group.

SOURCE: Centers for Disease Control, "Summary of Notifiable Diseases, US, 1987," *Morbidity and Mortality Weekly Report* Vol. 36 No. 54, p. 33 (Sept. 16, 1988).

- Data on the immunization status of Hispanic children show that between 1982 and 1983, while 95 percent of Mexican-American infants had received one or more doses of diphtheria, pertussis, and tetanus vaccine, only 66 percent were fully immunized against these three fatal childhood diseases. Only 76 percent of two-year-old Mexican-American children were fully immunized.[7]
- The number of reported cases of preventable disease has increased in recent years. In 1986 nearly 1,200 cases of measles among sixteen-month-olds to four-year-olds were reported by the CDC, which found that 83 percent of the cases could have been prevented through adequate immunization.[8] Reported pertussis cases, another preventable disease, are highest among infants (Figure 2.10).

FIGURE 2.11

Percent of Children Ages 5-11 Who Visited a Dentist in the Previous Year, by Annual Family Income, U.S., 1986



SOURCE: National Center for Health Statistics.

Part Two Notes

1. Department of Labor, Bureau of Labor Statistics, *Employee Benefits in Medium and Large Firms, 1986:* Bulletin 2281 (Washington: GPO, June 1987), 45.

2. Congressional Research Service, *Health Insurance and the Uninsured: Background Data and Analysis* (Washington: GPO, 1988).

3. Alan Guttmacher Institute, *Blessed Events and the Bottom Line. Financing Maternity Care in the United States* (Washington: Alan Guttmacher Institute, 1987), 20-21.

4. Institute of Medicine, Committee to Study Outreach for Prenatal Care, *Prenatal Care: Reaching Mothers. Reaching Infants* (Washington: National Academy Press, 1988), 65-66.

5. Institute of Medicine, *Prenatal Care,* 87-93.

6. Institute of Medicine, Committee to Study the Prevention of Low Birthweight, *Preventing Low Birthweight* (Washington: National Academy Press, 1985), 106-12, 132-47.

7. Peter J. Gergen, Trena Ezzati, and Harold Russell, "DTP Immunization Status and Tetanus Antitoxin Titers of Mexican American Children Ages Six Months through Eleven Years," *American Journal of Public Health* 78 (Nov. 1988), 1446-50.

8. Centers for Disease Control, "Measles—United States, 1986," *Morbidity and Mortality Weekly Report* 36 (May 29, 1987), 303.

9. Centers for Disease Control, "Progress Toward Achieving the 1990 Objectives for Pregnancy and Infant Health," *Morbidity and Mortality Weekly Report* 37 (July 8, 1988), 405-7.

Part Three:

Maternal and Child Health Programs

Low- and moderate-income families without health insurance have few sources of care available to them except for publicly supported programs. For millions of children and pregnant women, federally funded programs such as Community and Migrant Health Centers and services offered by state and local health agencies funded through the federal Title V Maternal and Child Health Block Grant and the Special Supplemental Food Program for Women, Infants, and Children (WIC), are the primary or exclusive means of access decent health care. These programs have contributed to improved health status and often are cost-effective.

- Children who receive ongoing preventive pediatric care through programs such as Medicaid and other publicly financed programs have been found to have fewer health problems than those who do not. They also have annual health care costs nearly 10 percent less than children who do not receive preventive care.[1]

- Studies show that by providing access to primary and preventive care, community health centers have contributed to improved health status, more appropriate use of health care services, and lower costs for the more than 3 million women of childbearing age and children they serve.[2]

- Each $1 spent to immunize a child can save more than $10 by reducing preventable childhood illness and disability. The major federal initiative to immunize young American children against preventable disease has saved billions of dollars in averted health costs. A study of the impact of the first twenty years of the measles vaccine (1963 to 1982) found that this effort yielded an estimated net savings of $5.1 billion in direct and indirect costs averted.[3]

- Numerous studies demonstrate that prenatal care saves lives and that government programs such as the Maternal and Child Health Block Grant and Medicaid have enabled millions of women to obtain care.[4] Children born to women who do not receive prenatal care are three times more likely to die in infancy than if the mother receives comprehensive care. Babies whose mothers receive inadequate care also are at greater risk of being born at low birthweight, a condition that increases the likelihood of such permanent lifelong disabilities as cerebral palsy, retardation, autism, and vision and learning disabilities. Each $1 spent on providing prenatal care to a pregnant mother can save up to $11 over a child's lifetime (more than $3 in the first year of life), taking into account the medical, social, and education costs and lost ea ngs that could result from severe .mpairments that are averted by such ti y investments.[5]

- Because they prevent costly health damage, government expenditures on atal care help mothers and babies and also reduce future expenditures, ng to a recent study by the congressional Office of Technology nent. The report found that prenatal care was so effective in reducing .w thweight and prematurity that the cost of expanding Medicaid to cover all poor women's maternity care would be more than offset by savings to the federal Medicaid program resulting from greater use of such services.[6]

- Numerous studies have demonstrated that participation throughout pregnancy in WIC leads to better prenatal care, longer gestation, increased birthweight, and lower neonatal mortality.[7] A WIC analysis in Massachusetts found that for every $1 spent on WIC prenatal costs, more than $3 is saved on medical costs during infancy. In Missouri a study estimated that every $1 spent on WIC resulted in nearly $1 in Medicaid savings within just thirty days of birth. If long-term costs of disabilities were included, even greater savings would be demonstrated.[8]

The effectiveness and cost-effectiveness of providing basic preventive health care services to pregnant women and children have been documented widely in recent years. Given a better understanding of the investment and a growing awareness of the problem of the uninsured, Congress has moved to improve key maternal and child health programs, particularly Medicaid.

Medicaid

The Medicaid program is the primary health care financing program for low-income children and pregnant women. In 1987 more than 11.6 million children younger than eighteen received services paid for by Medicaid (Table 3.1). Medicaid paid for maternity care for approximately a half million births that year.

Medicaid has been a crucial source of health care financing for low-income women and children for more than two decades. However, because of recent federal and state expansions of the Medicaid program, its importance as a financer of maternal and child health is growing. If all states exercise the option created by Congress in 1987 to provide Medicaid to all pregnant women and infants with

TABLE 3.1

Children's Share of Medicaid, U.S., 1980-1987

Year	Number of Child Recipients[1]	Expenditures for Child Recipients (in thousands)	Number of Recipients, Of All Ages	Expenditures for All Recipients (in thousands)	Percent of Recipients that Were Children	Percent of Expenditures that Were for Children
1980	11,209,884	$3,795,544	21,710,516	$23,309,285	51.6%	16.2%
1981	10,999,698	$4,061,309	21,979,638	$27,211,753	50.0%	14.9%
1982	11,110,328	$4,203,599	21,936,446	$29,905,882	50.6%	14.1%
1983	10,743,633	$4,547,383	21,494,240	$32,350,546	50.0%	14.1%
1984	10,820,648	$4,678,579	21,557,067	$33,890,946	50.2%	13.8%
1985	10,969,293	$5,218,452	21,818,897	$37,524,890	50.3%	13.9%
1986	11,321,921	$6,087,251	22,405,325	$40,878,210	50.5%	14.9%
1987	11,637,465	$6,605,639	23,183,311	$45,097,603	50.2%	14.7%

[1]Children include recipients younger than age 21. These numbers exclude children with disabilities whose Medicaid eligibility is based on their relationship to the Supplemental Security Income Program.

SOURCE: U.S. Health Care Financing Administration, published and unpublished data. Calculations by Children's Defense Fund.

family incomes less than 185 percent of the federal poverty level (as nine already do), Medicaid eventually will be available to cover health care costs for nearly one out of two births in the United States. As states exercise their option to extend Medicaid coverage to all children ages one to eight with family incomes below the federal poverty level, Medicaid will become a source of health care financing for one in five young American children.

Remaining restrictive eligibility standards, however, leave Medicaid an incomplete protection for uninsured poor and near-poor families. States have no option to cover children older than eight whose family incomes are above AFDC eligibility levels but still below the poverty line, nor do they have an option to cover near-poor children older than one. Moreover, because many states have not yet taken advantage of the Medicaid options available to them, a large portion of poor younger children and near-poor pregnant women and infants still are not eligible.

- States determine the Medicaid income eligibility standards, and for non-pregnant adults and children older than one the standards generally are quite low. In 1988 the basic state Medicaid eligibility level for families with children in the median state stood at 43.9 percent of the federal poverty level. While some states had liberalized these standards for certain subpopulations of young children, the basic eligibility level for all remaining children falling outside the scope of the new option was extremely restrictive (Table 3.3).
- States are required to cover all children born after September 30, 1983, with family incomes that are less than their AFDC payment levels, but who do not qualify for AFDC as "dependent" children (usually because both parents are present in the home). Coverage for older children born on or before September 30, 1983, is optional, however; in 1988, fifteen states still did not cover this group of exceedingly poor children.
- While thirty states have elected to cover some children younger than eight with incomes below the poverty level but above AFDC payment levels, only six have elected to cover all of this group (Tables 3.2 and 3.3).
- Only thirteen states have elected the option to extend coverage to all infants and pregnant women with family incomes above 100 percent but below 185 percent of the federal poverty level. Of these thirteen, only nine have set the income standard at the maximum level of 185 percent of the poverty level.

AFDC

In 1988 eligibility levels for AFDC payment and automatic Medicaid coverage for families with no other income were extremely restrictive. No state's payment level reached the federal poverty level. Thirty-four states had payment levels less than 50 percent of the federal poverty level for a family of three (Table 3.4).

The AFDC program's standard of need in theory reflects the amount a family would need to subsist, but in most states it is much lower. The standard of need set by states in 1988 ranged from 115.2 percent of the federal poverty level for a family of three in Vermont to 27 percent in Kentucky.

In 1988 AFDC payments were so low that in more than half the states they did not even meet the state's own definitions of the amount a family needed to subsist. The payment level in Arkansas was 28.9 percent of its own standard of need.

TABLE 3.2

State Medicaid Eligibility Characterists for Children and Pregnant Women
October 1988

State	Expanded Financial Eligibility			Other Eligibility and Benefit Options			
	Up to 100% of Federal Poverty Level		Above 100% of Federal Poverty Level				
	Pregnant Women and Infants	Children Over Age One	Pregnant Women and Infants	Current Maximum Age for Children Under 100% Poverty[1]	Waives Asset Test	Continuous Eligibility for Pregnant Women	Presumptive Eligibility
Alabama	Yes	No	No	—	Yes	Yes	Yes
Alaska	Yes	No	No	—	No	No	No
Arizona	Yes	Yes	No	5	Yes	Yes	No
Arkansas	Yes	Yes	No	5	No	Yes	Yes
California	Yes	No	Yes	—	No	No	No
Colorado	No	No	No	—	No	No	No
Connecticut	Yes	No	Yes	—	Yes	Yes	No
Delaware	Yes	No	No	—	Yes	Yes	No
District of Columbia	Yes	Yes	No	2	Yes	Yes	No
Florida	Yes	Yes	No	5	Yes	Yes	Yes
Georgia	Yes	Yes	No	2(5)	Yes	No	Yes
Hawaii	Yes	No	No	—	Yes	Yes	Yes
Idaho	Yes	No	No	—	Yes	No	No
Illinois	Yes	No	No	—	Yes	Yes	Yes
Indiana	Yes	No	No	—	Yes	Yes	Yes
Iowa	Yes	Yes	Yes	2(5)	No	No	No
Kansas	Yes	Yes	No	2	Yes	No	No
Kentucky	Yes	Yes	Yes	2	No	Yes	No
Louisiana	Yes	Yes	No	5(8)	Yes	Yes	Yes
Maine	Yes	Yes	Yes	5	Yes	Yes	Yes
Maryland	Yes	Yes	No	2	Yes	Yes	Yes
Massachusetts	Yes	Yes	Yes	5	Yes	Yes	Yes
Michigan	Yes	Yes	Yes	3(5)	Yes	Yes	No
Minnesota	Yes	No	Yes	—	Yes	Yes	No
Mississippi	Yes	Yes	Yes	2(5)	No	Yes	No
Missouri	Yes	Yes	No	3(5)	No	Yes	No
Montana	No	No	No	—	No	No	No
Nebraska	Yes	Yes	No	2(5)	Yes	Yes	Yes
Nevada	No	No	No	—	No	No	No
New Hampshire	No	No	No	—	No	No	No
New Jersey	Yes	Yes	No	2	Yes	Yes	Yes
New Mexico	Yes	Yes	No	3(5)	No	Yes	Yes
New York	No	No	No	—	No	No	No
North Carolina	Yes	Yes	No	3(5)	Yes	Yes	Yes
North Dakota	No	No	No	—	No	No	No
Ohio	Yes	No	No	—	Yes	Yes	No
Oklahoma	Yes	Yes	No	2	Yes	Yes	No
Oregon	Yes	Yes	No	3	Yes	Yes	No
Pennsylvania	Yes	Yes	No	3(5)	Yes	No	Yes
Rhode Island	Yes	Yes	Yes	5(8)	Yes	Yes	No
South Carolina	Yes	No	No	—	Yes	Yes	No
South Dakota	Yes	No	No	—	Yes	Yes	No
Tennessee	Yes	Yes	No	5	Yes	Yes	Yes
Texas	Yes	Yes	No	2(5)	No	Yes	Yes
Utah	Yes	No	No	—	Yes	Yes	Yes
Vermont	Yes	Yes	Yes	5(8)	No	Yes	No
Virginia	Yes	No	No	—	Yes	Yes	No
Washington	Yes	Yes	No	3	No	Yes	No
West Virginia	Yes	Yes	Yes	5(8)	Yes	Yes	No
Wisconsin	Yes[2]	No	Yes[2]	--	No	No	Yes
Wyoming	Yes	No	No	—	Yes	Yes	No
Total	45	28	13		33	37	20

[1]Number in parentheses indicates authorized age limit in states phasing in coverage of children below poverty.

TABLE 3.3

State Medicaid Eligiblity Levels for Children and Pregnant Women, October 1988

State	Maximum Medicaid Income Eligibility Levels as a Percentage of the Federal Poverty Level for a Family of Three				
	Pregnant Women and Infants	Young Children[1]	Older Children	Medically Needy Income Level	Maximum AFDC Payment Level[2]
Alabama	100.0	14.6	14.6	—	14.6
Alaska	100.0	77.2	77.2	—	77.2
Arizona	100.0	100.0(5)	36.3	—	36.3
Arkansas	100.0	100.0(5)	25.3	34.1	25.3
California	185.0	82.1	82.1	110.5	82.1
Colorado	52.1	52.1	52.1	—	44.1(52.1)
Connecticut	185.0	77.2	77.2	87.9	77.2
Delaware	100.0	39.5	39.5	—	39.5
District of Columbia	100.0	100.0(2)	46.9	60.1	46.9
Florida	100.0	100.0(8)	34.1	45.4	34.1
Georgia	100.0	100.0(5)	33.4	45.4	33.4
Hawaii	100.0	59.9	59.9	59.9	59.9
Idaho	68.0	37.6	37.6	—	37.6
Illinois	100.0	42.4	42.4	56.7	42.4
Indiana	50.0	35.7	35.7	—	35.7
Iowa	150.0	100.0(5)	48.8	65.0	48.8
Kansas	100.0	100.0(2)	52.9	59.4	52.9
Kentucky	125.0	100.0(2)	27.0	36.2	27.0
Louisiana	100.0	100.0(8)	23.5	32.0	23.5
Maine	185.0	100.0(5)	71.0	69.1	51.5(71.0)
Maryland	100.0	100.0(2)	46.7	54.7	46.7
Massachusetts	185.0	100.0(5)	66.7	90.8	66.7
Michigan	185.0	100.0(5)	74.8	68.0	57.7(74.8)
Minnesota	185.0	65.9	65.9	87.8	65.9
Mississippi	185.0	100.0(5)	45.6	—	14.9(45.6)
Missouri	100.0	100.0(5)	34.9	—	34.9
Montana	50.5	44.5	44.5	50.5	44.5
Nebraska	100.0	100.0(5)	45.1	60.9	45.1
Nevada	40.9	40.9	40.9	—	40.9
New Hampshire	69.0	61.4	61.4	69.0	61.4
New Jersey	100.0	100.0(2)	52.5	70.1	52.5
New Mexico	100.0	100.0(5)	32.7	—	32.7
New York	82.4	82.4	82.4	78.5	82.4
North Carolina	100.0	100.0(5)	32.9	44.3	32.9
North Dakota	53.9	45.9	45.9	53.9	45.9
Ohio	100.0	38.3	38.3	—	38.3
Oklahoma	100.0	100.0(2)	58.3	53.6	28.4(58.3)
Oregon	100.0	100.0(3)	51.0	69.2	51.0
Pennsylvania	100.0	100.0(5)	49.8	55.7	49.8
Rhode Island	185.0	100.0(8)	64.0	85.7	64.0
South Carolina	100.0	49.9	49.9	—	24.9(49.9)
South Dakota	100.0	45.3	45.3	—	45.3
Tennessee	100.0	100.0(5)	45.2	28.9	21.4(45.2)
Texas	100.0	100.0(5)	22.8	33.1	22.8
Utah	100.0	62.2	62.2	62.0	46.6(62.2)
Vermont	185.0	100.0(8)	77.9	104.1	77.9
Virginia	100.0	43.8	43.8	44.3	43.8
Washington	90.0	90.0(3)	60.9	74.2	60.9
West Virginia	150.0	100.0(8)	30.8	35.9	30.8
Wisconsin	120.0[3]	64.0	64.0	85.3	64.0
Wyoming	100.0	44.6	44.6	—	44.6

[1]States have the option of covering children older than one born after September 30, 1983, with incomes above the AFDC payment level and up to the federal poverty level until their eighth birthday. The number in parentheses indicates the age limit chosen by states for eventual coverage if more than the current age limit.

[2]Most states use the AFDC payment level as the Medicaid income eligibility threshhold. Eight states have chosen to use the higher AFDC standard of need level to determine Medicaid eligibility. The AFDC standard of need level is included in parentheses for those states.

[3]100 percent state-funded.

Notes to Tables 3.2 and 3.3

Medicaid eligibility determination is a complex process involving "mandatory" and "optional" financial requirements and "categorical" groupings. Furthermore, because Medicaid is a joint federal and state program that provides the states with an array of options to decide who can qualify for Medicaid, there are vast differences between state Medicaid programs.

States are required to cover the "categorically needy." The categorically needy include all (with very minor exceptions) AFDC and Supplemental Security Income recipients and pregnant women who would qualify for AFDC if the child was already born. Beginning in 1990, all infants and pregnant women with family incomes less than the federal poverty level and above the AFDC payment level also will be considered mandatorily categorically needy and all states must extend Medicaid benefits to them.

States also may elect to cover the "medically needy." The medically needy include those who fall into one of the Medicaid program's permissible coverage categories (including children, pregnant women, caretaker relatives, and aged and disabled individuals) but whose incomes or assets are too high to qualify for Medicaid outright. The medically needy can qualify for Medicaid by incurring medical bills that cause them to "spend down" their incomes to the state's medically needy income eligibility level. If a state decides to cover any group of the medically needy, it must cover medically needy children and pregnant women.

Medicaid's close ties to low AFDC income and asset limits and AFDC's various family structure requirements traditionally have limited eligibility to the very poorest children and often only those in single-parent families. Until recently, very poor children with incomes below AFDC program levels but not "dependent" within the meaning of AFDC could be excluded from Medicaid coverage. By October 1989, coverage of these children younger than seven is mandatory. However, states may still exclude children after their seventh birthday with such very low incomes.

Recent Medicaid expansions provide the states with options to simplify and loosen the eligibility requirements for pregnant women and children. The states now can choose to:

- Cover all pregnant women and infants younger than one year old with family incomes up to 185 percent of the federal poverty level. States can choose any income standard above the AFDC payment level. However, by 1990 states must cover all infants and pregnant women below the federal poverty level.
- Phase in coverage annually of all children older than one born after September 30, 1983, with incomes less than the federal poverty level with coverage ceasing at their eighth birthday. States can choose an income level between the AFDC payment standard and the poverty line and can set an age cutoff of between two and eight years old.
- Waive application of any asset test in the case of pregnant women and infants and young children.
- Provide continuous coverage to pregnant women throughout their pregnancies and sixty days post partum, regardless of any changes in income.
- Provide presumptive eligibility to pregnant women (that is, provide temporary Medicaid coverage immediately) while their formal applications are considered.

Table 3.2 details each state's Medicaid program and its response to the new options to provide coverage for more pregnant women and children. Positive responses have been recorded if a state has enacted enabling legislation and also has a fixed effective date.

Expanded Financial Eligibility

Pregnant Women and Infants Up to 100 Percent of the Federal Poverty Level: This column depicts states that have expanded eligibility to all pregnant women and infants below the federal poverty level (and thus have removed all non-financial eligibility requirements). Forty-four states and the District of Columbia have elected to cover some portion of poor pregnant women with incomes above the AFDC payment level. Only Colorado, Montana, Nevada, New Hampshire, New York, and North Dakota have not yet expanded coverage for infants and pregnant women. Of the states that have chosen to expand coverage, only Idaho, Indiana, and Washington have not included all women and infants with incomes below 100 percent of poverty. By 1990 states will be required to cover all pregnant women and infants below the federal poverty level.

Children Older than One Up to 100 Percent of the Federal Poverty Level: Thirty states now cover young poor children with family incomes below the federal poverty level. All of these states, except for Washington, have chosen to include all children with family incomes below the federal poverty level. Washington state has set its standard for these children at 90 percent of the poverty line. The current maximum age limits for these children also are included in this table. The phase-in age limits authorized by each state are included in parentheses. Only Arkansas, Florida, Louisiana, Rhode Island, Vermont, and West Virginia have passed legislation to phase in coverage up to a child's eighth birthday.

Pregnant Women and Infants Above 100 Percent of the Federal Poverty Level: Thirteen states have elected to cover near-poor women and infants. Nine of the thirteen chose to cover all near-poor women and infants with incomes below 185 percent of the federal poverty level.

Other Eligibility and Benefit Options

Waives Asset Test: Thirty-three states have waived the asset test for pregnant women and children younger than five. It is important to note that virtually all of the remaining states, while not waiving the asset test entirely, have broadened and simplified it considerably. Many have eliminated consideration of assets such as homes, cars, and income-producing property.

Continuous Eligibility: Thirty-seven states have guaranteed continuous Medicaid eligibility for pregnant women.

Presumptive Eligibility: Twenty states have presumptive eligibility either on a statewide basis or in certain communities. Most of these states are conducting pilot programs and are not offering presumptive eligibility as a statewide policy.

Table 3.3 lists the highest Medicaid eligibility levels available for pregnant women, infants, young children, and older children as a percent of poverty. Young children are those older than one with family incomes between the AFDC payment standard and the federal poverty level who could be covered at the option of a state. The authorized phase-in age limits chosen by states electing this option are included in parentheses. In addition, the table includes each state's maximum AFDC payment level for a family of three with no income. Most states use the AFDC payment level as the Medicaid income eligibility threshold. However, eight states have chosen to use the higher AFDC standard of need level to determine Medicaid eligibility. The AFDC standard of need level is included in parentheses for those states. For states with medically needy programs, the medically needy income level also is included.

TABLE 3.4

Characteristics of State AFDC Programs, 1986

State	AFDC Standard of Need as a Percent of Poverty		AFDC Payment Level as a Percent of Need		AFDC Payment Level as a Percent of Poverty	
	Rate	Rank	Rate	Rank	Rate	Rank
Alabama	47.6	39	30.7	49	14.6	51
Alaska	77.2	12	100.0	1	77.2	4
Arizona	76.9	14	47.2	44	36.3	36
Arkansas	87.3	7	28.9	51	25.3	45
California	82.1	9	100.0	2	82.1	2
Colorado	52.1	35	84.6	23	44.1	27
Connecticut	77.2	13	100.0	3	77.2	5
Delaware	39.5	48	100.0	4	39.5	32
District of Columbia	88.2	5	53.2	38	46.9	20
Florida	99.9	3	34.1	46	34.1	39
Georgia	46.6	40	71.8	31	33.4	40
Hawaii	59.9	30	100.0	5	59.9	12
Idaho	68.6	19	54.9	37	37.6	35
Illinois	88.3	4	48.0	42	42.4	30
Indiana	39.6	47	90.0	22	35.7	37
Iowa	61.5	27	79.3	26	48.8	19
Kansas	52.9	33	100.0	6	52.9	14
Kentucky	27.0	51	100.0	7	27.0	44
Louisiana	78.3	11	30.1	50	23.5	47
Maine	71.0	18	72.6	29	51.5	16
Maryland	64.6	24	72.2	30	46.7	21
Massachusetts	66.7	21	100.0	8	66.7	6
Michigan	74.8	16	77.2	27	57.7	13
Minnesota	65.9	22	100.0	9	65.9	7
Mississippi	45.6	42	32.6	47	14.9	50
Missouri	38.6	49	90.4	20	34.9	38
Montana	53.7	32	82.7	24	44.5	26
Nebraska	45.1	45	94.8	19	42.7	29
Nevada	68.1	20	60.0	35	40.9	31
New Hampshire	61.4	29	100.0	10	61.4	10
New Jersey	52.5	34	100.0	11	52.5	15
New Mexico	32.7	50	100.0	12	32.7	42
New York	82.4	8	100.0	13	82.4	1
North Carolina	65.9	23	50.0	40	32.9	41
North Dakota	45.9	41	100.0	14	45.9	23
Ohio	88.2	6	43.4	45	38.3	34
Oklahoma	58.3	31	65.8	33	38.4	33
Oregon	51.0	36	100.0	15	51.0	17
Pennsylvania	76.0	15	65.5	34	49.8	18
Rhode Island	64.0	25	100.0	16	64.0	8
South Carolina	49.9	37	49.9	41	24.9	46
South Dakota	45.3	43	100.0	17	45.3	24
Tennessee	45.2	44	47.4	43	21.4	49
Texas	71.1	17	32.1	48	22.8	48
Utah	62.2	26	74.9	28	46.6	22
Vermont	115.2	1	67.6	32	77.9	3
Virginia	48.7	38	90.1	21	43.8	28
Washington	108.0	2	56.4	36	60.9	11
West Virginia	61.5	28	50.1	39	30.8	43
Wisconsin	80.1	10	79.9	25	64.0	9
Wyoming	44.6	46	100.0	18	44.6	25

SOURCE: U.S. Department of Health and Human Services. Calculations by Children's Defense Fund.

Publicly Funded Sources of Health Care for Uninsured and Underserved Families

Families and children who are ineligible for Medicaid, or who cannot find providers who will take Medicaid patients, must rely on a seriously underfunded patchwork of public health programs.

Community and Migrant Health Centers

- Federal funding levels for community and Migrant Health Centers in FY 1988 were adequate to support only 550 centers. More than 20 million Americans, nearly half of whom are children, remain unserved. A small stream of additional federal maternal and infant health funding created in 1988 to help health centers expand and strengthen their maternity and infant health services was not enough to aid even half the centers, although many reported increases of up to 300 percent in the need for obstetrical and infant health services in their communities. Centers that were funded received only about half the amount necessary to serve all of the mothers and infants in need.

Health Manpower

- A health manpower crisis for poor communities looms on the horizon. In 1981 Congress, at the urging of the Reagan Administration, began a phase-out of the National Health Service Corps scholarship program. Since the program began in 1972, several thousand health professionals have been placed in underserved areas through the Corps. By 1988 only forty scholarships were awarded, compared with more than 4,300 in 1980, and no more scholarships will be granted after 1988. Currently there are about 3,300 professionals in the field; by 1990 total field strength will decline to 900. The last scholars will be deployed just four years later in 1994, a loss that could directly or indirectly affect millions of patients.

Recent congressional initiatives to provide additional scholarships and loans will make only a small dent in this problem. The nation now has 1,925 primary care health manpower shortage areas, affecting nearly 13 million people. The federal government estimates that at least 4,100 primary care providers (obstetricians, pediatricians, and family physicians) are needed in these areas, yet new loan repayment programs designed to attract graduating physicians into shortage areas are adequate to support only a few hundred professionals.

Title V

- Funding for the Title V Maternal and Child Health Block Grant program, targeted to medically underserved women and children, is so low that fewer than half of all states are able to offer comprehensive prenatal programs on a statewide basis.[9] Only a handful of states pay for hospital delivery services for low-income, uninsured women through Title V.[10] No state is able to offer comprehensive primary pediatric health services on a statewide basis.[11]

Family Planning

- The family planning program is a key player in the effort to help reduce infant mortality, prevent teen pregnancies, and halt the spread of AIDS. But its FY 1989 funding of $138.3 million is only a little more than one-half of the

TABLE 3.5

Women and Children Served with Federal and State WIC Funds

State	Number of Eligible Women and Children, 1984[1]	Number Served with Federal WIC Funds, August 1988	Number Served with State WIC Funds, August 1988[2]
Alabama	172,345	80,141	None
Alaska	14,888	6,445	Contingency funds
Arizona	105,532	57,976	Contingency funds
Arkansas	109,166	48,740	None
California	775,214	325,257	None
Colorado	71,253	40,731	None
Connecticut	64,360	45,879	None
Delaware	18,305	9,326	None
District of Columbia	14,929	9,900	2,539
Florida	299,461	139,990	None
Georgia	229,471	136,622	None
Hawaii	38,892	12,015	None
Idaho	52,249	19,037	None
Illinois	310,602	162,477	10,500
Indiana	167,976	73,389	Food/Administration
Iowa	83,845	40,985	Contingency funds
Kansas	74,411	33,053	None
Kentucky	150,426	74,550	None
Louisiana	169,174	98,020	None
Maine	43,267	19,238	None
Maryland	98,209	46,564	None
Massachusetts	132,164	59,558	13,698
Michigan	222,775	138,061	Administration only
Minnesota	106,156	56,060	1,450
Mississippi	143,400	95,611	None
Missouri	157,275	66,350	None
Montana	31,208	13,909	None
Nebraska	47,926	21,345	None
Nevada	21,038	13,608	None
New Hampshire	24,467	14,001	Administration only
New Jersey	173,250	65,578	Contingency fund
New Mexico	66,652	33,679	None
New York	558,005	259,502	33,500
North Carolina	216,277	113,491	None
North Dakota	25,388	14,092	None
Ohio	313,828	189,363	None
Oklahoma	115,205	48,218	None
Oregon	80,379	41,171	None
Pennsylvania	307,322	151,431	32,364
Rhode Island	24,910	14,243	Contingency fund
South Carolina	133,738	81,157	None
South Dakota	32,947	15,388	None
Tennessee	159,321	84,609	None
Texas	580,213	249,821	20,149
Utah	91,702	38,100	None
Vermont	18,507	14,502	None
Virginia	158,595	74,490	None
Washington	119,679	48,004	Administration only
West Virginia	69,930	34,248	None
Wisconsin	122,602	71,221	Food/Administration
Wyoming	13,141	9,156	None
United States	7,331,974	3,610,302	149,200

[1]See Technical Notes regarding 1984 estimates of eligible persons.

[2]States may supplement federal WIC funds to serve more eligibles persons. Nine states appropriate funds to provide food. Five states supply funds for administration costs. Five other states have set aside contingency funds in case federal allocations are overspent.

SOURCE: Center for Budget and Policy Priorities.

Notes to Table 3.5

All states receive federal funding under the Special Supplemental Food Program for Women, Infants, and Children (WIC), which provides food, nutrition education, and counseling and health care to pregnant and postpartum women and infants and children. Annual WIC appropriations are allocated to states based on a formula that takes into account factors such as the percentage of the eligible women and children being served and the amount of the WIC appropriation.

Federal WIC funding levels have increased over the past few years so that more women, infants, and children are served. However, the proportion of eligible persons who actually are served remains far too small. In 1988 only 49.2 percent of eligible women and children received WIC services. In some states, less than one-third of all eligible persons actually were served (Table 3.5).

To serve greater numbers of women and children, several states now supplement the federal WIC program with state resources. As of August 1988, seventeen jurisdictions (Alaska, Arizona, the District of Columbia, Illinois, Indiana, Iowa, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Texas, Washington, and Wisconsin) appropriated funds for WIC. In nine of these jurisdictions (the District of Columbia, Illinois, Indiana, Massachusetts, Minnesota, New York, Pennsylvania, Texas, and Wisconsin), the funds are used specifically for program expansion. In these states, appropriated funds supplement the federal allocation to serve additional women, infants, and children and to administer the program. In three states (Michigan, New Hampshire, and West Virginia), the funds are designated for program administration and nutrition services, not food benefits. In the remaining five states (Alaska, Arizona, Iowa, New Jersey, and Rhode Island), appropriated WIC funds are set aside to be used only in the event that the federal WIC grant is exceeded (a type of contingency fund).

This table shows, by state, the estimated number of women and children who were eligible for WIC in 1984, the number served with federal WIC funds in August 1988, and (where available) the number served in August 1988 with state WIC funds. The methods by which these figures were derived are described in the Technical Notes section of this book.

amount that would be required to maintain the program at 1981 service levels. A series of funding cuts and years of ground lost to inflation have shrunk the program.

WIC

- WIC, while operating at funding levels significantly higher than in the beginning of the decade, still reaches less than half of those eligible. In some states barely three out of ten eligible women and children are served.

Childhood Immunizations

In 1988, responding to the crisis in childhood immunizations, Congress appropriated sufficient funding to ensure an adequate vaccine supply for all children. However, because infants and toddlers, whose immunization status has eroded, are the most difficult to reach, they may go without needed vaccines unless additional funds are appropriated to deploy the necessary personnel to find and immunize them.

Recommendations

If the nation is to make real progress in reducing infant and childhood death and disability and improving the health of women of childbearing age, the reform efforts undertaken by Congress and the states beginning in the mid-1980s must be expanded and strengthened.

Maternity Care

The effectiveness of comprehensive maternity care is universally recognized. Care furnished early and continuously throughout pregnancy, and during the delivery and postpartum period, has been shown to have the greatest impact on women and children who are at highest risk for adverse outcomes. The incidence of low birthweight can be reduced through the provision of services that include medical care and preventive health services such as health education, patient care management, and nutritional supplementation. Infant mortality can be reduced significantly if women are able to deliver their babies in settings appropriate to their health care needs, including, when necessary, delivery in hospitals equipped to deal appropriately with extremely high-risk situations such as preterm deliveries. Proper health care during the preconceptual period and following the birth of an infant promote both healthier initial and subsequent pregnancies. To ensure that all women receive the care needed to preserve their health and that of their children, CDF recommends the following reforms:

- Medicaid coverage should be provided immediately to all pregnant women with family incomes less than 200 percent of the federal poverty level. This expansion, when fully implemented, will cost approximately $1 billion per year, with federal costs for the first three years estimated at $100 million.

  Medicaid ultimately also should be made available to all women of childbearing age who otherwise are uninsured and who need to purchase maternity coverage. These eligibility expansions should be accompanied by reforms in physician payment levels to ensure that payment for obstetrical services is adequate to assure reasonable access to needed care by beneficiaries.

- The WIC program should be fully funded so that all children and pregnant women at nutritional risk can be served. This expansion can be accomplished

for approximately $1 billion per year, beginning with an investment of $150 million to $200 million in FY 1990.

- Congress should expand funding for Community and Migrant Health Centers so that clinics can be developed in all medically underserved areas. It also should include sufficient funding immediately to expand and strengthen the scope of maternity and infant services offered by all existing health centers. An additional $47 million is needed in FY 1990.
- For FY 1990 the Title V Maternal and Child Health Block Grant should be expanded to permit states to develop comprehensive maternity care services in underserved areas. An additional $100 million would permit nearly all states to develop statewide networks of providers.
- The health manpower programs that were reauthorized by Congress in 1988 and that provide scholarship and loan assistance to medical, nursing, and health professions students and graduates working in manpower shortage areas should be funded fully in FY 1990. Full funding for these programs would cost approximately $162 million annually. Additionally, the National Health Service Corps scholarship program, which is the only medical manpower program targeted to shortage areas, should be reauthorized.
- To ensure that family planning supplies and counseling are available to all sexually active adolescents and adults, funding for the federal family planning program should be returned at least to FY 1981 service levels. The one-year cost of this expansion would be about $150 million.

Pediatric Services

In addition to the recommendations made for pregnant women that also would add services for children (such as expansion of Community and Migrant Health Centers, full funding for WIC, and full funding for health manpower programs targeted to shortage areas), CDF recommends:

- The Medicaid program must be expanded so that it covers at least all children younger than twenty-one with family incomes less than 200 percent of the federal poverty level. This reform should be accompanied by improvements in the level of compensation paid by Medicaid to pediatric providers to ensure that services are available in adequate quantity.

The first step in improving pediatric services is to mandate Medicaid coverage of all poor children (with family incomes less than 100 percent of the federal poverty level). The federal cost of fully implementing this expansion would be approximately $750 million to $1 billion, with federal costs for the first three years estimated at $200 million.

- The special program under the Title V Maternal and Child Health Block Grant to develop sources of primary health services for medically underserved children and community-based care for children with special health care needs should be expanded so that sources of care can be developed in areas that are now underserved. An additional $100 million would permit an expansion of services.
- The newly authorized lead prevention program should receive full funding in FY 1990. This would cost $22 million, and would enable states to step up the identification and screening of pregnant women and children at risk of excessive lead exposure.
- Funding levels for the childhood immunization program must remain adequate to ensure CDC's ability to purchase the necessary level of vaccine. An

additional $20 million should be appropriated in FY 1990 to permit the federal government and the states to deploy the increased number of personnel necessary to find and immunize infants and preschoolers.

The question is not whether the nation can afford these reforms but whether the nation can afford not to enact them. CDF's recommendations have an FY 1990 price tag of approximately $3.5 billion. The first-year costs alone of caring for low-birthweight infants whose condition could have been prevented if the nation had met the Surgeon General's 1990 low-birthweight objective will exceed $6 billion by the year 2000. The cost of the reforms CDF recommends is very small compared with the cost of lifetimes of treatment and lost earnings for disabled children whose conditions could have been prevented, as well as the extraordinary costs associated with the continued spread of AIDS among adolescents and women of childbearing age. These expenditures represent such a basic level of investment in the health and safety of all of our children that their enactment cannot be delayed further.

Part Three Notes

1. William Keller, "Study of Selected Outcomes of the Early and Periodic Screening, Diagnosis, and Testing Program in Michigan," *Public Health Reports* 98 (March/April, 1983), 110-18.

2. Sara Rosenbaum, ed., *Community and Migrant Health Centers: Two Decades of Achievement* (Washington: National Association of Community Health Centers, 1986).

3. A.B. Bloch, W.A. Orenstein, H.C. Stetler, et al., "Health Impact of Measles Vaccination in the United States," *Pediatrics* 76, No. 4 (1985), 524-32.

4. Institute of Medicine, Committee to Study the Prevention of Low Birthweight, *Preventing Low Birthweight* (Washington: National Academy Press, 1985). U.S. Congress, Office of Technology Assessment, *Healthy Children: Investing in the Future* (Washington: GPO, 1988).

5. Institute of Medicine, *Preventing Low Birthweight*, 212-33.

6. Office of Technology Assessment, *Healthy Children*, 90.

7. David Rush, *The National WIC Evaluation: An Evaluation of the Special Supplemental Food Program for WIC* (Washington: GPO, 1986). Milton Kotelchuck, Janet Schwartz, Marlene Anderka, et al., "WIC Participation and Pregnancy Outcomes: Massachusetts Statewide Evaluation Project," *American Journal of Public Health* 74 (Oct. 1984), 1084-92.

8. Wayne F. Schramm, "WIC Prenatal Participation and Its Relationship to Newborn Medical Cost in Missouri: A Cost/Benefit Analysis," *American Journal of Public Health* 75 (Aug. 1985), 851.

9. Sara Rosenbaum, Dana Hughes, and Kay Johnson, "Maternal and Child Health Services for Medically Indigent Children and Pregnant Women," *Medical Care* 26 (April 1988), 321.

10. Sara Rosenbaum, "Maternal and Child Health Services," 326.

11. Sara Rosenbaum, "Maternal and Child Health Services," 329.

Part Four:

National, State, and Large City Health Status and Trends

TABLE 4.1

Infant Mortality Rates,[1] by Race, U.S., 1940-1986

Year	All Races	White	Nonwhite		Ratio of Black to White
			Black	Total	
1940	47.0	43.2	72.9	73.8	1.69
1941	45.3	41.2	74.1	74.8	1.80
1942	40.4	37.3	64.2	64.6	1.72
1943	40.4	37.5	61.5	62.5	1.64
1944	39.8	36.9	59.3	60.3	1.61
1945	38.3	35.6	56.2	57.0	1.58
1946	33.8	31.8	48.8	49.5	1.53
1947	32.2	30.1	47.7	48.5	1.58
1948	32.0	29.9	45.7	46.5	1.58
1949	31.3	28.9	46.8	47.3	1.62
1950	29.2	26.8	43.9	44.5	1.64
1951	28.4	25.8	44.3	44.8	1.72
1952	28.4	25.5	46.9	47.0	1.84
1953	27.8	25.0	44.5	44.7	1.78
1954	26.6	23.9	42.9	42.9	1.79
1955	26.4	23.6	43.1	42.8	1.83
1956	26.0	23.2	42.4	42.1	1.83
1957	26.3	23.3	44.2	43.7	1.90
1958	27.1	23.8	46.3	45.7	1.95
1959	26.4	23.2	44.8	44.0	1.93
1960	26.0	22.9	44.3	43.2	1.93
1961	25.3	22.4	41.8	40.7	1.87
1962	25.3	22.3	42.6	41.4	1.91
1963	25.2	22.2	42.8	41.5	1.93
1964	24.8	21.6	42.3	41.1	1.96
1965	24.7	21.5	41.7	40.3	1.94
1966	23.7	20.6	40.2	38.8	1.95
1967	22.4	19.7	37.5	35.9	1.90
1968	21.8	19.2	36.2	34.5	1.89
1969	20.9	18.4	34.8	32.9	1.89
1970	20.0	17.8	32.6	30.9	1.83
1971	19.1	17.1	30.3	28.5	1.77
1972	18.5	16.4	29.6	27.7	1.80
1973	17.7	15.8	28.1	26.2	1.78
1974	16.7	14.8	26.8	24.9	1.81
1975	16.1	14.2	26.2	24.2	1.85
1976	15.2	13.3	25.5	23.5	1.92
1977	14.1	12.3	23.6	21.7	1.92
1978	13.8	12.0	23.1	21.1	1.93
1979	13.1	11.4	21.8	19.8	1.91
1980	12.6	11.0	21.4	19.1	1.95
1981	11.9	10.5	20.0	17.8	1.90
1982	11.5	10.1	19.6	17.3	1.94
1983	11.2	9.7	19.2	16.8	1.98
1984	10.8	9.4	18.4	16.1	1.96
1985	10.6	9.3	18.2	15.8	1.96
1986	10.4	8.9	18.0	15.7	2.02

[1]Deaths per 1,000 live births.

SOURCE: All tables in Section Four are based on data from the National Center for Health Statistics except Tables 4.34A-D. See Technical Notes for information on these sources. Calculations by Children's Defense Fund.

TABLE 4.2

Neonatal Mortality Rates,[1] by Race, U.S., Selected Years, 1950-1986

Year	All Races	White	Nonwhite		Ratio of Black to White
			Black	Total	
1950	20.5	19.4	27.8	27.5	1.43
1955	19.1	17.7	27.8	27.2	1.57
1960	18.7	17.2	27.8	26.9	1.62
1961	18.4	16.9	26.2	26.2	1.55
1962	18.3	16.9	27.1	26.1	1.60
1963	18.2	16.7	27.0	26.1	1.62
1964	17.9	16.2	27.4	26.5	1.69
1965	17.7	16.1	26.5	15.4	1.65
1966	17.2	15.6	25.9	24.8	1.66
1967	16.5	15.0	25.0	23.8	1.67
1968	16.1	14.7	24.3	23.0	1.65
1969	15.6	14.2	23.9	22.5	1.68
1970	15.1	13.8	22.8	21.4	1.65
1971	14.2	13.0	21.0	19.6	1.62
1972	13.6	12.4	20.7	19.2	1.67
1973	13.0	11.8	19.3	17.9	1.64
1974	12.3	11.1	18.7	17.2	1.68
1975	11.6	10.4	18.3	16.8	1.76
1976	10.9	9.7	17.9	16.3	1.85
1977	9.9	8.7	16.1	14.7	1.85
1978	9.5	8.4	15.5	14.0	1.85
1979	8.9	7.9	14.3	12.9	1.81
1980	8.5	7.5	14.1	12.5	1.88
1981	8.0	7.1	13.4	11.8	1.89
1982	7.7	6.8	13.1	11.3	1.93
1983	7.3	6.4	12.4	10.8	1.94
1984	7.0	6.2	11.8	10.2	1.90
1985	7.0	6.1	12.1	10.3	1.98
1986	6.7	5.8	11.7	10.1	2.02

[1]Deaths per 1,000 live births.

TABLE 4.3

Postneonatal Mortality Rates,[1] by Race, U.S., Selected Years, 1950-1986

Year	All Races	White	Nonwhite		Ratio of Black to White
			Black	Total	
1950	8.7	7.4	16.1	17.0	2.18
1955	7.3	5.9	15.3	15.6	2.59
1960	7.3	5.7	16.5	16.3	2.89
1961	6.9	5.5	14.7	14.5	2.67
1962	7.0	5.4	15.5	15.3	2.87
1963	7.0	5.5	15.8	15.4	2.87
1964	6.9	5.4	14.8	14.6	2.74
1965	7.0	5.4	15.2	14.9	2.81
1966	6.5	5.0	14.3	14.0	2.86
1967	5.9	4.7	12.5	12.1	2.66
1968	5.7	4.5	11.9	11.5	2.64
1969	5.3	4.2	10.8	10.4	2.57
1970	4.9	4.0	9.9	9.5	2.48
1971	4.9	4.1	9.3	8.9	2.27
1972	4.9	4.0	8.9	8.5	2.23
1973	4.7	4.0	8.8	8.3	2.20
1974	4.4	3.7	8.1	7.7	2.19
1975	4.5	3.8	7.9	7.4	2.08
1976	4.3	3.6	7.6	7.2	2.11
1977	4.2	3.6	7.6	7.0	2.11
1978	4.3	3.6	7.6	7.1	2.11
1979	4.2	3.5	7.5	6.9	2.14
1980	4.1	3.5	7.3	6.6	2.09
1981	3.9	3.4	6.6	6.0	1.94
1982	3.8	3.3	6.5	6.0	1.97
1983	3.9	3.3	6.8	6.0	2.06
1984	3.8	3.2	6.6	5.9	2.06
1985	3.7	3.2	6.1	5.5	1.91
1986	3.6	3.1	6.3	5.6	2.03

[1]Deaths per 1,000 live births.

TABLE 4.4

Perinatal Mortality Ratios,[1] by Race, U.S., 1950-1981

Year	Perinatal Definition I[2]				Perinatal Definition II[2]			
			Nonwhite				Nonwhite	
	All Races	White	Black	Total	All Races	White	Black	Total
1950	33.0	30.5	—	48.1	39.7	36.4	—	60.0
1951	32.2	29.8	—	47.5	38.9	35.6	—	59.4
1952	31.6	29.0	—	47.5	38.1	34.6	—	60.3
1953	31.0	28.6	—	45.4	37.3	34.2	—	57.0
1954	30.2	27.8	—	44.3	36.5	33.3	—	55.9
1955	30.0	27.7	—	43.9	36.2	32.9	—	55.6
1956	29.3	26.9	—	42.8	35.4	32.1	—	54.2
1957	29.2	26.8	—	43.0	35.4	32.1	—	54.6
1958	29.6	27.0	—	44.5	36.0	32.3	—	56.5
1959	29.1	26.6	—	43.3	35.2	31.6	—	55.0
1960	28.9	26.5	—	42.4	34.8	31.4	—	53.6
1961	28.6	26.2	—	41.7	34.5	31.0	—	53.2
1962	28.5	26.0	—	41.7	34.3	30.8	—	52.7
1963	28.2	25.6	—	41.8	34.0	30.4	—	52.8
1964	28.4	25.5	—	43.2	34.3	30.3	—	54.7
1965	28.0	25.2	—	41.3	33.8	30.0	—	52.6
1966	27.2	24.6	—	39.9	32.9	29.2	—	50.9
1967	26.5	23.9	—	38.9	32.1	28.5	—	49.6
1968	26.1	23.8	—	37.7	31.9	28.5	—	48.6
1969	24.2	22.0	—	34.8	29.7	26.6	—	45.1
1970	23.2	21.1	—	33.2	29.3	26.2	—	44.0
1971	21.9	20.0	—	30.6	27.6	24.8	—	40.8
1972	21.4	19.5	—	30.0	26.3	23.5	—	38.7
1973	20.2	18.5	—	27.9	25.2	22.6	—	36.4
1974	19.1	17.4	—	26.3	23.7	21.4	—	34.2
1975	17.9	16.2	—	25.3	22.3	19.9	—	32.8
1976	16.9	15.2	—	24.1	21.4	19.0	—	31.5
1977	15.5	14.0	—	21.9	19.8	17.5	—	29.5
1978	14.7	13.1	—	21.1	19.2	16.9	—	28.7
1979	13.9	12.6	21.2	19.5	18.3	16.2	29.3	26.7
1980	13.3	11.9	20.9	18.9	17.7	15.7	28.7	26.0
1981	12.6	11.4	19.6	17.6	17.0	15.1	27.4	24.6
1982	12.3	11.1	19.3	17.2	16.6	14.7	27.0	24.0
1983	11.6	10.4	18.3	16.3	15.7	13.9	26.1	23.1
1984	11.4	10.0	17.5	15.5	15.2	13.5	24.7	21.8
1985	10.8	9.6	17.5	15.3	14.8	13.1	24.8	21.7
1986	10.4	9.1	17.1	15.1	14.4	12.6	24.4	21.3

[1]See Technical Notes for a description of and formula for the ratio.

[2]Definition I refers to fetal deaths of 28 weeks or more gestation and infant deaths less than 7 days after birth. Perinatal Definition II refers to fetal deaths of 20 weeks or more gestation and infant death less than 28 days after birth.

TABLE 4.5

Maternal Mortality Rates,[1] by Race, U.S., 1940-1986[2]

Year	All Races	White	Nonwhite	Ratio of Nonwhite to White
1940	376.0	319.8	773.5	2.4
1941	316.5	266.0	678.1	2.6
1942	258.7	221.8	544.0	2.5
1943	245.2	210.5	509.9	2.4
1944	227.9	189.4	506.0	2.7
1945	207.2	172.1	454.8	2.6
1946	156.7	130.7	358.9	2.8
1947	134.5	108.6	334.6	3.1
1948	116.6	89.4	301.1	3.4
1949	90.3	68.1	234.8	3.5
1950	83.3	61.1	221.6	3.6
1951	75.0	54.9	201.3	3.7
1952	67.8	48.9	188.1	3.9
1953	61.1	44.1	166.1	3.8
1954	52.4	37.2	143.8	3.9
1955	47.0	32.8	130.3	4.0
1956	40.9	28.7	110.7	3.9
1957	41.0	27.5	118.3	4.3
1958	37.6	26.3	101.8	3.9
1959	37.4	25.8	102.1	4.0
1960	37.1	26.0	97.9	3.8
1961	36.9	24.9	101.3	4.1
1962	35.2	23.8	95.9	4.0
1963	35.8	24.0	96.9	4.0
1964	33.3	22.3	89.9	4.0
1965	31.6	21.0	83.7	4.0
1966	29.1	20.2	72.4	3.6
1967	28.0	19.5	69.5	3.6
1968	24.5	16.6	63.6	3.8
1969	22.2	15.5	55.7	3.6
1970	21.5	14.4	55.9	3.9
1971	18.8	13.0	45.3	3.5
1972	18.8	14.3	38.5	2.7
1973	15.2	10.7	34.6	3.2
1974	14.6	10.0	35.1	3.5
1975	12.8	9.1	29.0	3.2
1976	12.3	9.0	26.5	2.7
1977	11.2	7.7	26.0	3.4
1978	9.6	6.4	23.0	3.6
1979	9.6	6.4	22.7	3.6
1980	9.2	6.7	19.8	3.0
1981	8.5	6.3	17.3	2.8
1982	7.9	5.8	16.4	2.8
1983	8.0	5.9	16.3	2.8
1984	7.8	5.4	16.9	3.1
1985	7.8	5.2	18.1	3.5
1986	7.2	4.9	16.0	3.3

[1]Deaths per 100,000 live births.

[2]Data for 1940 to 1978 may not be based on the same definitions. See Technical Notes.

TABLE 4.6

Percentage of Infants Born at Low Birthweight, by Race, U.S., Selected Years, 1950-1986

Year	All Races	White	Nonwhite		Ratio of Black to White
			Black	Total	
1950	7.5	7.1	—	10.2	—
1955	7.6	6.8	—	11.7	—
1960	7.7	6.8	—	12.8	—
1961	7.8	6.9	—	13.0	—
1962	8.0	7.0	—	13.1	—
1963	8.2	7.1	—	13.6	—
1964	8.2	7.1	—	13.9	—
1965	8.3	7.2	—	13.8	—
1966	8.3	7.2	—	13.9	—
1967	8.2	7.1	—	13.6	—
1968	8.2	7.1	—	13.7	—
1969	8.1	7.0	14.1	13.5	2.01
1970	7.9	6.8	13.9	13.3	2.04
1971	7.7	6.6	13.4	12.7	2.03
1972	7.7	6.5	13.6	12.9	2.09
1973	7.6	6.4	13.3	12.5	2.08
1974	7.4	6.3	13.1	12.4	2.08
1975	7.4	6.3	13.1	12.2	2.08
1976	7.3	6.1	13.0	12.1	2.13
1977	7.1	5.9	12.8	11.9	2.17
1978	7.1	5.9	12.8	11.9	2.17
1979	6.9	5.8	12.6	11.6	2.17
1980	6.8	5.7	12.5	11.5	2.19
1981	6.8	5.7	12.5	11.4	2.19
1982	6.8	5.6	12.4	11.2	2.21
1983	6.8	5.6	12.6	11.2	2.25
1984	6.7	5.6	12.4	11.1	2.21
1985	6.8	5.6	12.4	11.1	2.21
1986	6.8	5.6	12.5	11.2	2.23

TABLE 4.7

Percentage of Infants Born at Very Low Birthweight, by Race, U.S., 1979-1986

Year	All Races	White	Black
1979	1.15	0.90	2.37
1980	1.15	0.90	2.44
1981	1.16	0.90	2.47
1982	1.18	0.92	2.51
1983	1.19	0.93	2.55
1984	1.19	0.92	2.56
1985	1.21	0.94	2.65
1986	1.21	0.93	2.66

TABLE 4.8

Percentage of Babies Born to Women Receiving First Trimester Care, by Race, U.S., 1969-1986

Year	All Races	White	Nonwhite	
			Black	Total
1969	68.0	72.4	42.7	44.5
1970	67.9	72.4	44.3	46.0
1971	68.6	73.0	46.6	48.1
1972	69.4	73.6	49.0	50.6
1973	70.8	74.9	51.4	52.9
1974	72.1	75.9	53.9	55.3
1975	72.3	75.9	55.8	57.0
1976	73.5	76.8	57.7	58.8
1977	74.1	77.3	59.0	60.1
1978	74.9	78.2	60.2	61.4
1979	75.9	79.1	61.6	62.9
1980	76.3	79.3	62.7	63.8
1981	76.3	79.4	62.4	63.8
1982	76.1	79.3	61.5	63.2
1983	76.2	79.4	61.5	63.4
1984	76.5	79.6	62.2	64.1
1985	76.2	79.4	61.8	63.7
1986	75.9	79.2	61.6	63.7

TABLE 4.9

Percentage of Babies Born to Women Receiving Late or No Prenatal Care, by Race, U.S., 1969-1986

Year	All Races	White	Black	Total
1969	8.1	6.3	18.2	17.7
1970	7.9	6.2	16.6	16.2
1971	7.2	5.8	14.6	14.1
1972	7.0	5.5	13.2	13.1
1973	6.7	5.4	12.4	12.3
1974	6.2	5.0	11.4	11.2
1975	6.0	5.0	10.5	10.4
1976	5.7	4.8	9.9	9.8
1977	5.6	4.7	9.6	9.5
1978	5.4	4.5	9.3	9.1
1979	5.1	4.3	8.9	8.8
1980	5.1	4.3	8.8	8.8
1981	5.2	4.3	9.1	8.9
1982	5.5	4.5	9.6	9.3
1983	5.6	4.6	9.7	9.4
1984	5.6	4.7	9.6	9.3
1985	5.7	4.7	10.0	9.5
1986	6.0	5.0	10.6	9.9

NOTE: Late care is defined as starting in the third trimester.

TABLE 4.10

Births to Mothers Younger Than 20 as a Percentage of Total Births, by Race, U.S., Selected Years, 1950-1986

Year	All Races	White	Nonwhite	
			Black	Total
1950	11.94	10.46	21.72	21.22
1955	12.10	10.83	19.05	19.56
1960	13.94	12.79	—	20.25
1961	14.27	13.17	—	20.18
1962	14.58	13.62	—	20.62
1963	14.49	13.40	—	21.18
1964	14.73	13.26	23.11	22.25
1965	15.92	14.28	25.16	23.95
1966	17.45	15.62	27.78	26.39
1967	17.18	14.98	20.46	27.91
1968	17.15	14.75	30.85	29.05
1969	17.08	14.62	31.04	29.21
1970	17.59	15.13	31.29	29.45
1971	17.98	15.44	31.67	29.65
1972	19.28	16.51	33.82	31.48
1973	19.66	16.84	34.44	31.95
1974	19.24	16.50	33.85	31.29
1975	18.91	16.26	32.90	30.34
1976	18.01	15.51	31.21	28.72
1977	17.15	14.74	29.72	27.34
1978	16.62	14.34	28.47	26.01
1979	16.03	13.82	27.50	25.07
1980	15.56	13.53	26.48	23.84
1981	14.79	12.86	25.29	22.63
1982	14.22	12.32	24.62	21.86
1983	13.71	11.78	24.25	21.35
1984	13.01	11.11	23.64	20.75
1985	12.71	10.79	23.04	20.14
1986	12.57	10.61	22.79	19.93

TABLE 4.11A

Infant Mortality Rates, All Races, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	16.1	14.4	15.1	13.0	13.8	13.1	12.9	12.6	13.3
Alaska	14.4	15.9	12.3	12.7	11.1	12.4	11.2	10.8	10.8
Arizona	13.1	13.6	12.4	11.8	9.3	9.5	9.5	9.7	9.4
Arkansas	16.4	13.4	12.7	11.9	10.1	10.7	10.9	11.6	10.3
California	11.8	11.2	11.1	10.2	9.9	9.7	9.4	9.5	8.9
Colorado	11.2	10.6	10.1	10.0	9.1	10.0	10.2	9.4	8.6
Connecticut	11.6	12.1	11.2	12.1	11.1	10.1	10.4	10.0	9.1
Delaware	13.2	17.0	13.9	13.4	14.1	10.0	10.8	14.8	11.5
District of Columbia	27.3	22.2	25.0	25.1	21.2	19.3	21.0	20.8	21.1
Florida	14.1	14.9	14.6	13.3	12.8	12.2	10.8	11.3	11.0
Georgia	15.4	15.1	14.5	13.8	12.7	13.4	12.9	12.7	12.5
Hawaii	11.1	10.0	10.3	9.8	8.8	9.4	9.9	8.8	9.3
Idaho	11.7	10.0	10.7	9.2	9.9	10.8	9.8	10.4	11.3
Illinois	15.7	15.2	14.8	13.9	13.6	12.4	12.1	11.7	12.1
Indiana	13.1	13.0	11.9	11.7	11.4	11.4	11.1	10.9	11.3
Iowa	12.6	10.6	11.8	10.0	10.2	8.9	8.8	9.5	8.5
Kansas	12.5	11.3	10.4	11.4	10.4	10.3	10.1	9.3	8.9
Kentucky	12.7	11.5	12.9	12.2	12.0	11.6	11.5	11.2	9.8
Louisiana	17.3	15.6	14.3	13.7	13.0	13.5	12.1	11.9	11.9
Maine	10.4	9.9	9.2	10.9	9.0	8.7	8.4	9.1	8.8
Maryland	14.7	14.5	14.0	12.6	11.9	11.8	11.8	11.9	11.7
Massachusetts	11.1	10.9	10.5	9.7	10.1	9.1	9.0	9.1	8.5
Michigan	13.8	13.3	12.8	13.1	12.1	11.8	11.7	11.4	11.4
Minnesota	12.0	10.8	10.0	10.3	9.5	9.8	8.9	8.8	9.2
Mississippi	18.7	17.6	17.0	15.4	15.4	15.1	14.4	13.7	12.4
Missouri	14.8	13.7	12.4	12.6	11.7	10.7	10.4	10.2	10.7
Montana	11.6	10.7	12.4	10.7	10.1	9.0	8.8	10.3	9.6
Nebraska	13.0	11.6	11.5	9.9	10.0	9.9	9.6	9.6	10.1
Nevada	12.5	12.5	10.7	11.2	10.2	10.7	10.5	8.5	9.1
New Hampshire	10.4	10.6	9.9	9.7	11.0	8.6	10.2	9.3	9.1
New Jersey	13.0	12.9	12.5	10.7	11.7	11.5	10.9	10.6	9.8
New Mexico	14.1	14.0	11.5	9.8	11.3	10.0	9.6	10.6	9.5
New York	14.0	13.6	12.5	12.4	12.1	11.6	11.0	10.8	10.7
North Carolina	16.6	15.1	14.5	13.1	13.7	13.2	12.4	11.8	11.5
North Dakota	13.5	11.9	12.1	11.2	10.6	8.9	8.1	8.5	8.4
Ohio	13.3	12.8	12.8	12.3	11.5	11.2	10.4	10.3	10.6
Oklahoma	14.3	12.5	12.7	11.9	12.3	10.9	11.0	10.9	10.4
Oregon	12.9	10.9	12.2	10.9	10.5	9.6	9.9	9.9	9.4
Pennsylvania	13.7	13.3	13.2	11.9	11.6	11.3	10.4	11.0	10.2
Rhode Island	13.6	14.1	11.0	11.8	10.0	11.7	9.9	8.2	9.4
South Carolina	18.6	17.1	15.6	16.1	16.1	15.0	14.7	14.2	13.2
South Dakota	13.5	11.2	10.9	11.5	10.2	10.8	10.0	9.9	13.3
Tennessee	14.8	13.6	13.5	12.6	12.0	12.8	11.8	11.4	11.0
Texas	14.3	12.9	12.2	11.6	10.9	11.1	10.5	9.8	9.5
Utah	11.4	10.7	10.4	9.8	11.0	8.8	9.1	9.6	8.6
Vermont	13.6	8.5	10.7	7.7	9.3	8.7	8.7	8.5	10.0
Virginia	13.8	14.6	13.6	12.5	12.8	11.9	12.1	11.5	11.1
Washington	12.5	11.5	11.8	10.5	10.6	9.5	10.2	10.7	9.8
West Virginia	15.1	13.8	11.8	13.0	11.4	10.9	11.0	10.7	10.2
Wisconsin	11.2	10.8	10.3	10.4	9.5	9.6	9.9	9.1	9.2
Wyoming	13.0	13.2	9.8	10.6	9.8	9.8	11.1	12.2	10.9
United States	13.8	13.1	12.6	11.9	11.5	11.2	10.8	10.6	10.4

TABLE 4.11B

Infant Mortality Rates, White, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	12.1	11.4	11.6	10.2	10.3	10.3	9.7	10.4	9.8
Alaska	13.5	13.4	9.4	11.1	11.1	10.7	9.3	9.6	10.1
Arizona	12.4	12.5	11.8	11.0	9.1	8.9	8.8	9.4	9.0
Arkansas	14.3	11.4	10.3	9.8	8.0	9.1	9.2	10.9	8.9
California	11.2	10.8	10.6	9.9	9.6	9.4	9.1	9.2	8.6
Colorado	11.0	10.5	9.8	10.1	9.1	10.0	9.9	9.1	8.3
Connecticut	10.0	1.9	10.2	10.6	9.8	8.9	9.2	8.5	7.8
Delaware	9.9	13.1	9.8	10.0	11.2	7.3	8.4	11.6	9.0
District of Columbia	—	—	—	—	—	—	—	—	—
Florida	11.8	12.4	11.8	10.4	10.1	9.9	8.5	9.2	8.8
Georgia	11.8	11.7	10.8	10.3	9.6	9.9	10.0	9.5	9.4
Hawaii	10.5	10.1	11.6	9.6	8.9	10.3	7.7	7.5	8.6
Idaho	11.8	10.0	10.7	9.4	10.2	10.7	9.8	10.5	11.3
Illinois	12.8	12.1	11.7	11.2	10.8	9.7	9.5	9.3	9.3
Indiana	11.9	12.0	10.5	10.8	10.4	10.7	10.2	10.0	10.1
Iowa	12.3	10.3	11.5	9.8	10.0	8.6	8.8	9.4	8.3
Kansas	11.7	10.6	9.5	10.6	10.4	10.0	9.4	9.0	8.4
Kentucky	12.0	10.7	12.0	11.8	11.4	11.0	10.9	10.3	9.6
Louisiana	12.7	12.1	10.5	10.2	9.4	9.8	8.9	8.6	8.7
Maine	10.5	9.7	9.4	11.1	9.0	8.7	8.4	9.2	9.0
Maryland	11.7	11.6	11.6	10.4	8.9	8.9	9.8	9.1	9.5
Massachusetts	10.5	10.5	10.1	9.3	9.6	8.5	8.6	8.2	7.7
Michigan	11.8	11.5	10.6	10.9	9.8	9.6	9.4	9.3	9.0
Minnesota	11.6	10.4	9.6	9.9	9.1	9.6	8.9	8.8	8.9
Mississippi	11.5	11.9	11.1	10.5	10.4	10.7	10.0	9.3	9.0
Missouri	12.2	12.1	11.1	11.7	10.1	9.2	9.0	9.0	9.3
Montana	10.4	10.6	11.8	10.1	10.2	8.6	8.9	9.8	8.7
Nebraska	12.1	11.0	10.7	9.5	9.6	9.5	8.2	9.0	9.2
Nevada	11.9	11.2	10.0	10.4	9.7	10.4	10.5	8.7	8.6
New Hampshire	10.5	10.7	9.9	9.8	11.0	8.6	10.2	9.2	9.1
New Jersey	10.5	10.5	10.3	9.0	9.6	9.5	9.3	8.8	7.8
New Mexico	13.4	12.9	11.3	9.7	11.2	9.8	9.4	10.6	9.0
New York	11.9	11.9	10.8	10.6	10.6	9.9	9.8	9.4	9.2
North Carolina	13.0	11.2	12.1	10.7	10.8	10.5	9.9	9.4	9.2
North Dakota	13.4	11.1	11.7	10.7	9.8	8.5	7.7	8.4	8.3
Ohio	12.1	11.6	11.2	10.8	10.3	9.8	9.3	9.3	9.5
Oklahoma	13.4	11.8	12.1	11.5	12.3	10.7	11.1	10.8	10.1
Oregon	12.9	10.8	12.2	10.8	10.4	9.6	10.0	9.7	9.3
Pennsylvania	12.5	12.0	11.9	10.7	10.3	9.8	8.8	9.5	8.6
Rhode Island	12.2	12.5	10.9	11.5	9.3	11.0	9.4	8.1	8.8
South Carolina	13.3	12.4	10.8	12.4	11.9	11.3	11.0	9.6	10.1
South Dakota	12.1	9.6	9.0	10.2	8.4	8.3	8.8	8.9	10.4
Tennessee	13.1	11.5	11.9	10.2	10.1	10.7	9.8	8.9	8.7
Texas	12.9	11.5	11.2	10.7	10.0	10.4	9.7	9.0	8.6
Utah	11.3	10.7	10.5	9.7	11.0	8.9	9.0	9.7	8.6
Vermont	13.5	8.6	10.7	7.6	9.4	8.5	8.8	8.5	9.7
Virginia	11.5	12.5	11.9	10.7	10.7	9.6	9.9	9.3	9.0
Washington	12.3	11.6	11.5	10.2	10.5	9.2	9.9	10.9	9.8
West Virginia	14.9	13.4	11.4	12.7	11.4	10.7	10.8	10.4	9.6
Wisconsin	10.9	10.3	9.7	9.8	8.7	9.0	9.2	8.5	8.5
Wyoming	13.4	13.2	9.3	10.8	9.9	9.9	11.2	12.2	10.8
United States	12.0	11.4	11.0	10.5	10.1	9.7	9.4	9.3	8.9

TABLE 4.11C

Infant Mortality Rates, Black, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	23.7	19.9	21.6	18.2	20.4	18.5	19.2	17.0	20.0
Alaska	—	—	—	—	—	—	—	—	—
Arizona	18.7	24.5	18.4	21.1	—	20.7	16.9	12.4	14.7
Arkansas	22.6	19.6	20.0	18.3	16.9	15.6	16.7	14.2	15.3
California	19.9	17.9	18.0	15.5	15.9	16.7	15.6	16.3	16.2
Colorado	17.1	15.9	19.1	—	12.4	15.5	17.0	15.9	17.2
Connecticut	22.0	21.2	19.1	22.4	21.1	19.6	19.3	20.9	18.4
Delaware	23.4	30.1	27.9	24.4	23.9	17.3	19.4	25.8	17.6
District of Columbia	30.2	25.6	26.7	26.7	24.1	21.3	24.3	23.7	24.0
Florida	20.8	22.4	22.8	22.0	21.1	19.3	18.4	17.8	18.2
Georgia	22.1	21.4	21.0	19.9	18.2	19.8	18.5	19.0	18.4
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—	—
Illinois	26.7	26.8	26.3	24.4	24.6	23.1	22.0	21.4	22.3
Indiana	23.4	22.2	23.4	19.6	20.2	18.1	19.1	19.5	21.5
Iowa	—	—	27.2	—	—	—	—	—	—
Kansas	22.0	19.2	20.6	20.9	17.7	15.3	18.5	14.4	15.0
Kentucky	19.9	19.9	22.0	17.1	18.3	18.1	18.4	20.5	12.7
Louisiana	24.6	21.2	20.6	19.9	19.2	19.9	17.4	17.2	17.0
Maine	—	—	—	—	—	—	—	—	—
Maryland	22.5	21.6	20.4	18.2	19.3	18.6	17.0	18.9	17.3
Massachusetts	20.1	16.4	16.8	16.0	18.6	16.8	14.2	20.8	18.5
Michigan	24.6	23.0	24.2	24.9	24.6	23.1	23.5	22.4	22.8
Minnesota	26.7	23.4	20.0	25.9	18.2	22.5	—	15.5	16.4
Mississippi	26.4	23.6	23.7	20.6	20.8	20.0	19.5	18.9	16.2
Missouri	29.2	23.2	20.7	18.7	20.6	19.1	18.3	17.0	18.5
Montana	—	—	—	—	—	—	—	—	—
Nebraska	28.1	—	25.2	—	—	—	—	—	—
Nevada	—	—	—	22.8	—	—	—	—	—
New Hampshire	—	—	—	—	—	—	—	—	—
New Jersey	22.8	22.5	21.9	18.3	20.4	19.4	18.4	18.8	18.5
New Mexico	—	—	—	—	—	—	—	—	—
New York	21.9	20.7	20.0	19.9	18.1	18.1	16.2	16.1	16.7
North Carolina	24.9	24.2	20.0	19.1	20.6	19.6	18.8	17.8	17.4
North Dakota	—	—	—	—	—	—	—	—	—
Ohio	21.5	20.6	23.0	22.1	19.3	19.5	17.7	16.9	17.4
Oklahoma	21.5	18.7	21.8	18.4	16.8	14.9	14.8	18.5	17.3
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	22.1	22.5	23.1	21.1	20.8	21.1	21.3	20.4	19.8
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	26.5	24.2	22.9	21.8	22.7	20.9	20.7	21.8	18.1
South Dakota	—	—	—	—	—	—	—	—	—
Tennessee	21.2	20.9	19.3	21.2	19.3	20.3	18.9	20.2	18.6
Texas	22.6	21.3	18.8	17.8	16.6	16.3	15.8	15.5	15.9
Utah	—	—	—	—	—	—	—	—	—
Vermont	—	—	—	—	—	—	—	—	—
Virginia	21.7	21.3	19.8	18.8	20.1	20.0	19.6	19.2	18.0
Washington	21.2	12.5	16.4	15.5	16.9	18.5	21.3	12.6	13.5
West Virginia	—	—	—	—	—	—	—	—	—
Wisconsin	15.2	18.8	18.5	17.5	20.2	16.4	18.7	17.4	17.3
Wyoming	—	—	—	—	—	—	—	—	—
United States	23.1	21.8	21.4	20.0	19.6	19.2	18.4	18.2	18.0

TABLE 4.11D

Infant Mortality Rates, Nonwhite, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	23.4	19.7	21.4	18.1	20.0	18.3	18.9	16.8	19.8
Alaska	16.7	22.0	18.9	16.4	14.9	16.5	16.1	13.8	12.2
Arizona	16.4	19.7	15.8	15.9	10.3	12.3	13.2	11.3	11.2
Arkansas	22.1	19.1	19.4	17.7	16.1	15.3	16.0	13.8	14.7
California	14.5	13.3	13.0	11.4	10.8	11.0	10.6	11.0	10.4
Colorado	13.3	11.6	13.7	9.0	8.9	10.7	12.5	13.2	11.9
Connecticut	22.0	20.0	17.6	21.2	18.9	17.6	17.2	19.1	16.3
Delaware	23.2	29.2	26.8	23.3	23.2	17.6	18.6	24.8	17.0
District of Columbia	29.7	25.2	26.3	26.6	24.3	21.0	24.1	22.9	22.6
Florida	20.1	21.6	22.0	21.2	20.4	18.5	17.7	17.2	17.4
Georgia	21.5	20.9	20.7	19.6	17.9	19.5	18.2	18.5	17.9
Hawaii	11.3	10.0	9.9	9.8	8.7	9.1	10.6	9.3	9.6
Idaho	—	—	—	—	—	—	—	—	—
Illinois	25.1	25.0	24.7	22.5	22.8	21.4	20.5	19.9	21.1
Indiana	22.3	21.1	22.0	18.6	18.9	17.0	17.8	18.3	20.3
Iowa	21.0	18.3	20.8	—	—	—	—	—	—
Kansas	19.7	17.0	17.9	17.9	14.4	13.0	15.8	11.7	12.4
Kentucky	19.1	18.7	20.3	15.9	16.9	16.5	17.3	19.7	12.2
Louisiana	24.3	20.8	20.3	19.3	18.7	19.3	16.9	16.7	16.5
Maine	—	—	—	—	—	—	—	—	—
Maryland	21.3	20.3	19.1	17.1	18.1	17.5	15.9	17.5	16.1
Massachusetts	17.0	14.1	14.3	13.7	14.7	14.1	12.3	16.7	14.6
Michigan	23.2	21.6	22.7	23.3	22.9	21.7	22.0	20.8	21.2
Minnesota	18.3	17.5	16.0	15.7	14.0	13.2	8.7	9.4	13.1
Mississippi	26.1	23.5	23.3	20.6	20.9	19.8	19.2	18.7	16.2
Missouri	28.2	22.1	19.5	17.5	19.7	18.2	17.3	16.3	17.6
Montana	21.5	—	—	—	—	—	—	—	—
Nebraska	25.7	20.0	21.7	15.9	14.9	—	—	16.9	20.2
Nevada	—	19.8	14.3	15.2	13.1	12.0	—	—	11.7
New Hampshire	—	—	—	—	—	—	—	—	—
New Jersey	21.7	21.2	19.9	16.8	19.0	18.3	16.7	16.6	16.4
New Mexico	17.4	19.5	12.6	10.3	11.5	11.2	10.6	10.7	12.0
New York	20.9	19.2	17.8	18.2	16.8	16.7	14.8	14.7	15.0
North Carolina	23.9	23.3	19.4	18.3	19.7	19.0	17.9	17.0	16.6
North Dakota	—	—	—	—	—	—	—	—	—
Ohio	20.6	19.8	21.9	20.9	18.5	18.7	16.9	16.1	16.7
Oklahoma	17.8	15.2	15.3	13.3	12.3	11.3	10.6	11.0	11.4
Oregon	—	11.7	12.3	11.5	11.9	—	—	11.4	10.4
Pennsylvania	21.2	21.3	21.9	19.5	19.4	20.0	20.0	19.1	18.4
Rhode Island	—	30.9	—	—	—	—	—	—	—
South Carolina	26.0	23.8	22.5	21.6	22.2	20.5	20.2	21.4	17.9
South Dakota	22.4	21.3	22.3	19.7	20.2	23.8	18.1	14.9	27.5
Tennessee	20.7	20.4	18.8	20.7	18.7	19.8	18.5	19.4	18.3
Texas	21.5	20.2	17.5	16.6	15.2	14.7	14.4	14.0	14.3
Utah	—	—	—	—	—	—	—	—	—
Vermont	—	—	—	—	—	—	—	—	—
Virginia	20.1	20.1	18.4	17.5	18.7	18.3	18.3	17.6	16.7
Washington	15.0	10.4	13.6	12.7	11.9	11.6	12.4	9.5	9.7
West Virginia	—	—	—	—	—	—	—	—	—
Wisconsin	14.2	16.2	16.3	16.4	17.1	15.4	16.7	14.9	15.3
Wyoming	—	—	—	—	—	—	—	—	—
United States	21.2	19.8	19.1	17.8	17.3	16.8	16.1	15.8	15.7

TABLE 4.12A

Neonatal Mortality Rates, All Races, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	11.0	9.4	9.9	8.4	9.2	8.3	8.7	8.3	9.1
Alaska	9.4	9.7	6.5	8.0	6.5	6.6	5.7	5.1	6.2
Arizona	9.0	8.9	8.3	7.4	5.7	5.8	5.7	5.9	5.5
Arkansas	10.5	8.0	7.6	7.0	5.8	6.2	6.9	7.1	5.7
California	7.7	7.4	7.2	6.5	6.3	6.2	6.0	6.0	5.6
Colorado	6.9	6.4	6.6	6.5	5.7	5.9	5.8	5.5	5.3
Connecticut	9.3	9.3	8.1	9.5	8.6	7.8	7.5	7.8	6.8
Delaware	9.6	13.6	10.0	10.0	10.3	6.8	7.6	10.6	8.8
District of Columbia	20.2	17.5	18.3	19.5	15.6	14.1	16.0	15.9	16.1
Florida	9.3	9.9	9.8	8.9	9.0	7.7	6.9	7.4	7.3
Georgia	10.3	10.0	9.5	8.8	8.3	9.0	8.7	8.6	8.5
Hawaii	7.6	6.8	7.2	7.2	5.7	6.3	6.5	5.8	6.3
Idaho	7.3	6.6	6.2	5.3	6.3	5.8	5.0	6.3	6.7
Illinois	10.9	10.4	10.0	9.8	9.3	8.2	8.1	8.0	8.1
Indiana	8.6	9.2	7.9	8.0	7.7	7.5	7.1	7.5	7.5
Iowa	8.9	7.2	7.9	6.5	6.3	5.6	5.9	5.9	5.6
Kansas	8.7	7.9	6.8	8.1	6.9	6.1	6.5	6.0	5.1
Kentucky	8.6	7.7	8.2	8.0	7.8	7.9	7.4	7.5	6.4
Louisiana	12.0	10.3	10.0	9.3	8.4	9.0	8.0	7.7	7.8
Maine	6.1	5.7	5.8	6.8	6.2	5.9	5.1	6.5	5.6
Maryland	11.1	10.3	10.2	9.1	8.4	8.1	8.1	8.2	8.3
Massachusetts	8.1	8.1	7.7	6.9	7.6	6.4	6.1	6.5	5.8
Michigan	9.2	9.0	8.9	9.1	8.7	8.0	8.1	7.8	7.8
Minnesota	8.3	7.2	6.2	6.6	5.9	6.2	5.5	5.4	5.5
Mississippi	12.3	11.1	11.0	10.5	10.2	9.3	9.0	8.4	7.7
Missouri	10.8	9.5	8.2	8.7	7.5	7.2	6.4	6.5	6.8
Montana	7.3	7.1	7.7	6.3	6.5	4.3	4.5	5.0	5.6
Nebraska	9.1	7.9	7.5	6.1	6.9	6.5	6.2	6.2	6.6
Nevada	8.6	6.6	6.7	6.5	6.3	5.8	6.0	4.8	4.9
New Hampshire	8.0	7.7	7.5	6.3	8.6	5.8	7.1	6.3	5.9
New Jersey	9.3	9.2	8.6	7.3	8.2	7.8	7.5	7.2	6.6
New Mexico	9.0	8.9	7.3	5.9	6.6	5.5	6.0	6.3	5.4
New York	10.1	9.7	8.7	8.6	8.5	7.8	7.5	7.4	7.3
North Carolina	11.4	10.3	10.0	8.8	9.5	8.7	8.1	7.8	7.7
North Dakota	9.6	9.0	7.7	7.3	6.8	6.1	4.5	5.4	4.1
Ohio	9.2	8.8	8.7	8.6	7.9	7.7	6.8	6.7	6.9
Oklahoma	9.0	8.0	8.1	7.2	7.4	6.8	7.0	6.8	6.2
Oregon	7.7	6.6	7.0	6.9	6.2	5.4	4.8	5.3	4.7
Pennsylvania	10.5	9.7	9.7	8.5	8.2	7.9	7.2	7.6	6.8
Rhode Island	10.6	10.2	8.5	9.3	8.0	9.1	7.0	6.0	6.5
South Carolina	12.4	11.3	10.9	10.9	10.7	9.8	9.8	10.0	8.8
South Dakota	9.4	5.8	5.7	7.6	7.0	5.8	5.5	5.4	7.1
Tennessee	10.5	9.1	9.1	8.9	8.0	8.4	8.0	7.5	6.9
Texas	9.8	8.6	8.2	7.6	7.0	6.9	6.6	6.2	6.0
Utah	7.8	6.8	6.6	5.8	6.8	5.4	5.6	5.4	5.1
Vermont	9.1	6.3	6.0	4.3	6.1	6.2	5.5	5.4	7.5
Virginia	9.7	10.7	9.8	9.0	9.3	8.3	8.7	8.1	7.5
Washington	7.9	7.1	7.0	6.3	6.0	5.4	5.4	6.2	5.4
West Virginia	10.3	9.1	8.0	8.8	7.2	7.0	7.1	7.3	6.6
Wisconsin	7.6	7.1	6.7	6.9	6.2	6.3	6.3	5.6	5.7
Wyoming	8.1	8.4	6.2	8.1	5.9	5.1	7.1	6.4	5.8
United States	9.5	8.9	8.5	8.0	7.7	7.3	7.0	7.0	6.7

TABLE 4.12B

Neonatal Mortality Rates, White, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	8.7	7.8	7.8	6.8	7.4	6.9	6.9	7.0	6.9
Alaska	9.6	8.5	5.3	7.2	6.0	5.8	4.7	5.1	6.0
Arizona	9.0	8.7	8.3	7.3	6.1	5.7	5.6	5.9	5.4
Arkansas	9.4	7.2	6.5	6.1	4.8	5.6	5.7	6.7	5.3
California	7.3	7.1	6.9	6.3	6.1	6.0	5.8	5.8	5.4
Colorado	6.8	6.4	6.4	6.5	5.6	5.7	5.6	5.2	5.1
Connecticut	8.1	8.3	7.1	8.3	7.7	6.8	6.6	6.6	5.9
Delaware	6.9	9.9	6.3	7.6	8.7	4.8	6.1	8.6	7.4
District of Columbia	—	—	—	—	—	—	—	—	—
Florida	8.1	8.6	8.3	7.1	7.2	6.4	5.7	6.0	5.9
Georgia	8.2	8.2	7.5	6.6	6.5	6.8	6.6	6.6	6.5
Hawaii	7.0	7.2	8.3	8.2	—	7.0	—	—	—
Idaho	7.4	6.6	6.1	5.5	6.4	5.8	5.0	6.5	6.6
Illinois	9.4	8.7	8.1	8.2	7.7	6.7	6.6	6.4	6.4
Indiana	8.0	9.5	7.1	7.7	6.9	7.2	6.6	6.7	6.7
Iowa	8.7	7.1	7.7	6.4	6.2	5.5	5.9	5.8	5.5
Kansas	8.1	7.5	6.2	7.6	6.7	6.0	6.0	5.8	4.8
Kentucky	8.0	7.2	7.8	7.6	7.4	7.7	6.9	6.8	6.3
Louisiana	9.4	8.4	7.3	7.0	6.3	6.6	5.9	5.9	5.9
Maine	6.2	5.8	5.9	7.0	6.2	5.9	5.0	6.6	5.8
Maryland	8.7	8.4	8.5	7.5	6.3	6.0	6.7	6.0	6.5
Massachusetts	7.8	7.9	7.5	6.7	7.2	6.1	5.9	6.0	5.3
Michigan	7.8	7.7	7.3	7.5	6.9	6.4	6.4	6.2	6.0
Minnesota	8.1	7.1	6.1	6.4	5.8	6.2	5.5	5.4	5.5
Mississippi	8.3	8.1	7.7	7.0	6.9	7.0	7.0	5.5	6.1
Missouri	9.0	8.4	7.9	8.2	6.6	6.1	5.5	5.8	6.0
Montana	6.9	7.5	7.4	6.5	6.8	4.0	4.6	4.8	5.3
Nebraska	8.4	7.6	7.1	5.8	6.7	6.5	5.9	5.9	6.2
Nevada	8.1	5.9	6.4	6.0	6.1	5.8	6.1	4.5	4.9
New Hampshire	8.2	7.7	7.5	6.3	8.7	5.8	7.1	6.3	5.8
New Jersey	7.8	7.7	7.6	6.4	7.1	6.6	6.8	6.3	5.4
New Mexico	9.0	8.8	7.5	6.1	6.9	5.5	6.2	6.3	5.5
New York	8.8	8.6	7.7	7.4	7.6	7.0	6.9	6.6	6.5
North Carolina	9.2	8.0	8.4	7.1	7.2	7.0	6.7	6.1	6.2
North Dakota	10.0	8.4	7.7	7.0	6.6	5.9	4.5	5.3	4.1
Ohio	8.3	7.9	7.8	7.5	7.1	6.8	6.1	6.1	6.1
Oklahoma	8.7	8.0	7.7	7.1	7.4	6.8	7.2	6.8	6.0
Oregon	7.7	6.6	6.9	6.9	6.2	5.4	4.9	5.2	4.6
Pennsylvania	9.7	8.9	8.8	7.7	7.4	6.9	6.1	6.7	5.7
Rhode Island	9.8	9.3	8.9	9.0	7.6	8.7	6.7	5.9	6.1
South Carolina	9.4	8.8	7.6	8.1	8.1	7.1	7.8	6.6	6.9
South Dakota	9.3	5.5	5.2	7.2	6.3	5.3	5.0	5.4	6.1
Tennessee	9.1	7.6	8.1	7.0	6.6	7.0	6.4	5.5	5.6
Texas	8.9	7.8	7.6	7.0	6.5	6.4	6.2	5.7	5.4
Utah	7.7	7.0	6.6	5.7	6.9	5.4	5.4	5.5	5.1
Vermont	8.9	6.3	6.0	4.3	6.2	6.1	5.5	5.4	7.3
Virginia	8.0	9.3	8.4	7.6	7.6	6.4	7.2	6.5	6.0
Washington	7.8	7.2	7.1	6.4	6.0	5.4	5.3	6.3	5.3
West Virginia	10.1	8.8	7.8	8.6	7.1	6.9	7.0	7.0	6.2
Wisconsin	7.6	6.9	6.5	6.7	5.8	6.1	5.8	5.2	5.2
Wyoming	8.3	8.6	6.1	8.4	5.9	5.0	7.0	6.4	6.1
United States	8.4	7.9	7.5	7.1	6.8	6.4	6.2	6.1	5.8

TABLE 4.12C

Neonatal Mortality Rates, Black, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	15.2	12.4	13.6	11.5	12.9	10.9	12.2	11.0	13.4
Alaska	—	—	—	—	—	—	—	—	—
Arizona	—	15.0	—	15.7	—	—	—	—	—
Arkansas	13.8	10.6	11.3	9.6	9.0	7.9	10.8	8.5	7.3
California	13.7	11.4	11.6	9.9	10.0	11.3	9.7	10.1	9.9
Colorado	—	—	—	—	—	—	—	—	10.4
Connecticut	18.3	16.7	15.7	17.6	15.8	15.3	14.2	16.6	13.9
Delaware	17.3	25.4	22.4	18.0	16.1	—	—	17.5	13.3
District of Columbia	22.2	20.0	19.4	20.1	18.2	15.1	18.7	18.2	18.4
Florida	12.9	14.0	14.4	14.4	14.6	11.6	10.9	11.8	11.6
Georgia	14.2	13.4	13.1	12.7	11.7	13.2	12.7	12.7	12.4
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—	—
Illinois	16.9	17.1	16.9	16.1	15.9	13.8	13.8	14.0	14.4
Indiana	14.6	15.2	15.0	11.4	14.3	11.0	12.3	13.8	14.9
Iowa	—	—	—	—	—	—	—	—	—
Kansas	14.9	13.3	14.2	14.6	11.0	—	11.8	9.2	9.2
Kentucky	14.4	12.9	13.6	12.5	12.3	10.9	12.5	14.2	7.7
Louisiana	16.1	13.4	14.5	13.3	11.9	13.0	11.6	10.7	10.7
Maine	—	—	—	—	—	—	—	—	—
Maryland	17.3	15.2	14.8	13.1	13.7	13.3	11.8	13.5	12.6
Massachusetts	14.1	12.2	11.9	11.0	13.7	12.1	8.8	14.0	13.6
Michigan	16.1	15.8	17.1	17.6	18.4	16.2	16.9	16.0	16.6
Minnesota	—	—	—	19.1	—	—	—	—	—
Mississippi	16.7	14.4	14.6	14.2	13.7	11.8	11.4	11.9	9.7
Missouri	20.4	16.2	12.9	12.1	12.6	13.3	11.5	10.2	11.5
Montana	—	—	—	—	—	—	—	—	—
Nebraska	—	—	—	—	—	—	—	—	—
Nevada	—	—	—	—	—	—	—	—	—
New Hampshire	—	—	—	—	—	—	—	—	—
New Jersey	15.4	15.0	13.2	11.6	12.6	12.3	11.0	11.8	11.7
New Mexico	—	—	—	—	—	—	—	—	—
New York	14.8	14.5	13.4	13.3	12.0	11.4	10.0	10.6	10.8
North Carolina	16.5	15.8	13.7	12.9	15.2	12.7	11.8	12.1	11.5
North Dakota	—	—	—	—	—	—	—	—	—
Ohio	15.1	13.9	14.4	15.6	13.2	13.1	11.1	10.9	11.2
Oklahoma	12.3	10.5	14.3	10.2	10.8	9.4	9.2	12.1	10.2
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	16.0	15.4	15.9	14.4	14.1	14.4	14.6	13.5	13.3
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	16.9	15.1	15.7	15.0	14.9	14.1	13.1	15.6	11.8
South Dakota	—	—	—	—	—	—	—	—	—
Tennessee	15.4	14.4	12.8	15.5	13.1	13.4	13.5	14.8	11.3
Texas	15.6	13.5	12.4	12.1	10.3	10.6	9.7	9.5	9.9
Utah	—	—	—	—	—	—	—	—	—
Vermont	—	—	—	—	—	—	—	—	—
Virginia	15.6	15.3	14.7	14.0	15.0	14.8	13.6	13.6	12.5
Washington	—	—	—	—	10.5	9.9	12.6	—	—
West Virginia	—	—	—	—	—	—	—	—	—
Wisconsin	9.4	11.2	10.7	10.4	12.5	9.4	12.2	11.6	11.3
Wyoming	—	—	—	—	—	—	—	—	—
United States	15.5	14.3	14.1	13.4	13.1	12.4	11.8	12.1	11.7

TABLE 4.12D

Neonatal Mortality Rates, Nonwhite, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	15.0	12.3	13.5	11.3	12.6	10.9	12.1	10.8	13.2
Alaska	—	12.5	—	10.0	—	6.7	—	—	—
Arizona	9.2	10.3	8.4	8.0	3.7	8.4	5.8	6.2	5.8
Arkansas	13.5	10.3	11.0	9.4	8.6	7.9	10.3	8.2	7.1
California	9.8	8.6	8.5	7.3	6.9	7.3	6.5	6.6	6.3
Colorado	—	—	9.0	—	—	7.8	8.1	8.2	7.4
Connecticut	17.1	15.7	14.5	16.4	14.0	13.7	12.7	15.1	12.1
Delaware	17.3	24.7	21.5	17.3	15.8	12.6	—	17.0	13.0
District of Columbia	21.8	19.7	19.1	20.1	18.3	14.8	18.5	17.6	17.3
Florida	12.5	13.5	13.9	13.8	14.1	11.2	10.5	11.4	11.1
Georgia	13.8	13.1	12.9	12.5	11.5	12.9	12.5	12.3	12.1
Hawaii	7.9	6.7	6.8	6.9	5.8	6.1	7.0	5.9	6.6
Idaho	—	—	—	—	—	—	—	—	—
Illinois	16.0	15.9	15.9	14.9	14.8	12.9	12.8	13.0	13.7
Indiana	13.9	14.5	14.0	10.8	13.4	10.2	11.3	13.1	14.2
Iowa	—	—	—	—	—	—	—	—	—
Kansas	13.2	11.6	12.0	12.3	9.0	6.7	10.3	7.2	7.3
Kentucky	13.7	12.1	12.5	11.6	11.5	9.9	11.8	13.6	7.3
Louisiana	15.9	13.2	14.2	12.9	11.7	12.6	11.2	10.4	10.3
Maine	—	—	—	—	—	—	—	—	—
Maryland	16.2	14.2	13.9	12.4	12.8	12.4	11.0	12.5	11.8
Massachusetts	11.9	10.4	10.3	9.4	10.7	9.9	7.6	11.0	10.4
Michigan	15.3	14.8	16.1	16.5	17.0	15.0	15.6	14.9	15.4
Minnesota	11.0	9.2	8.2	10.1	7.6	7.0	—	5.9	5.8
Mississippi	16.5	14.4	14.4	14.2	13.7	11.7	11.2	11.7	9.6
Missouri	19.7	15.4	12.0	11.3	12.0	12.6	11.0	10.1	10.9
Montana	—	—	—	—	—	—	—	—	—
Nebraska	17.9	—	—	—	—	—	—	—	—
Nevada	—	—	—	—	—	—	—	—	—
New Hampshire	—	—	—	—	—	—	—	—	—
New Jersey	14.8	14.2	12.1	10.6	11.9	11.7	10.2	10.4	10.5
New Mexico	8.9	9.5	—	—	—	—	—	—	—
New York	14.1	13.5	11.9	12.3	11.2	10.4	9.1	9.6	9.7
North Carolina	15.9	15.1	13.3	12.3	14.3	12.4	11.2	11.4	10.8
North Dakota	—	—	—	—	—	—	—	—	—
Ohio	14.5	13.4	13.7	14.8	12.7	12.5	10.7	10.3	10.8
Oklahoma	10.3	7.8	9.7	7.5	7.5	6.9	6.5	6.9	6.7
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	15.4	14.6	15.0	13.2	13.1	13.6	13.7	12.8	12.5
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	16.6	14.9	15.4	14.9	14.5	13.8	12.8	15.4	11.7
South Dakota	—	—	—	—	—	—	—	—	—
Tennessee	15.0	14.0	12.5	15.2	12.7	12.9	13.1	14.2	11.1
Texas	14.9	12.7	11.5	11.2	9.5	9.4	8.7	8.5	9.0
Utah	—	—	—	—	—	—	—	—	—
Vermont	—	—	—	—	—	—	—	—	—
Virginia	14.5	14.5	13.7	13.0	14.0	13.6	12.8	12.4	11.5
Washington	8.5	6.2	6.9	6.1	6.2	5.6	6.4	5.2	6.4
West Virginia	—	—	—	—	—	—	—	—	—
Wisconsin	8.5	9.4	9.4	9.5	10.5	8.5	10.8	9.4	9.4
Wyoming	—	—	—	—	—	—	—	—	—
United States	14.0	12.9	12.5	11.8	11.3	10.8	10.2	10.3	10.1

TABLE 4 13A

Postneonatal Mortality Rates, All Races, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	5.1	5.0	5.2	4.6	4.6	4.8	4.2	4.3	4.2
Alaska	5.0	6.2	5.8	4.7	4.6	5.8	5.5	5.8	4.5
Arizona	4.1	4.7	4.1	4.4	3.6	3.8	3.9	3.8	3.9
Arkansas	5.9	5.4	5.1	4.9	4.3	4.5	4.0	4.5	4.6
California	4.1	3.8	3.9	3.7	3.6	3.5	3.5	3.5	3.3
Colorado	4.3	4.2	3.5	3.5	3.4	4.1	4.3	3.9	3.3
Connecticut	2.3	2.8	3.1	2.6	2.5	2.3	2.9	2.2	2.3
Delaware	3.6	3.4	3.9	3.4	3.8	—	3.2	4.2	—
District of Columbia	7.1	5.0	6.7	5.6	5.6	5.2	5.0	4.9	5.0
Florida	4.8	5.0	4.8	4.4	3.8	4.5	3.9	3.9	3.7
Georgia	5.2	5.1	5.0	5.0	4.4	4.4	4.2	4.1	4.0
Hawaii	3.5	3.2	3.1	2.6	3.1	3.1	3.4	3.0	3.1
Idaho	4.4	3.4	4.5	3.9	3.6	5.0	4.7	4.1	4.6
Illinois	4.8	4.8	4.8	4.1	4.3	4.2	4.0	3.8	4.0
Indiana	4.5	3.8	4.0	3.7	3.7	3.9	4.0	3.4	3.8
Iowa	3.7	3.4	3.9	3.5	3.9	3.3	2.9	3.6	2.9
Kansas	3.8	3.4	3.6	3.3	3.5	4.2	3.6	3.3	3.8
Kentucky	4.1	3.8	4.7	4.2	4.2	3.7	4.2	3.7	3.5
Louisiana	5.3	5.3	4.3	4.4	4.6	4.5	4.0	4.2	4.1
Maine	4.3	4.0	3.4	4.1	2.8	2.8	3.3	2.6	3.2
Maryland	3.6	4.2	3.8	3.5	3.5	3.7	3.7	3.7	3.5
Massachusetts	3.0	2.8	2.8	2.8	2.5	2.7	2.9	2.5	2.6
Michigan	4.6	4.3	3.9	4.0	3.4	3.8	3.7	3.6	3.5
Minnesota	3.7	3.6	3.8	3.7	3.6	3.6	3.4	3.4	3.7
Mississippi	6.4	6.6	6.0	4.9	5.2	5.8	5.4	5.3	4.6
Missouri	4.0	4.2	4.2	3.9	4.2	3.5	4.0	3.8	3.9
Montana	4.3	3.6	4.7	4.4	3.6	4.7	4.4	5.3	4.0
Nebraska	3.9	3.7	4.0	3.8	3.1	3.4	3.5	3.4	3.5
Nevada	3.9	5.9	4.0	4.7	3.9	4.9	4.5	3.7	4.2
New Hampshire	—	2.9	2.4	3.4	2.4	2.8	3.1	3.0	3.2
New Jersey	3.7	3.7	3.9	3.4	3.5	3.7	3.4	3.4	3.2
New Mexico	5.1	5.1	4.2	3.5	4.7	4.5	3.6	4.4	4.1
New York	3.9	3.9	3.8	3.6	3.8	3.5	3.5	3.4	3.4
North Carolina	5.2	4.8	4.5	4.3	4.2	4.5	4.2	4.0	3.9
North Dakota	3.9	2.9	4.4	3.9	3.8	2.8	3.6	3.2	4.3
Ohio	4.1	4.0	4.1	3.7	3.6	3.5	3.7	3.6	3.8
Oklahoma	5.3	4.5	4.6	4.7	4.9	4.1	3.9	4.0	4.2
Oregon	5.2	4.3	5.2	4.0	4.3	4.2	5.1	4.6	4.7
Pennsylvania	3.2	3.6	3.5	3.4	3.4	3.4	3.2	3.4	3.4
Rhode Island	3.0	3.9	2.5	2.5	2.0	2.6	2.9	2.9	2.9
South Carolina	6.2	5.8	4.7	5.2	5.4	5.2	4.9	4.2	4.4
South Dakota	4.1	5.4	5.2	3.9	3.2	5.0	4.5	4.5	6.2
Tennessee	4.3	4.5	4.4	3.7	4.0	4.4	3.9	3.8	4.1
Texas	4.5	4.3	4.0	4.0	3.9	4.2	3.9	3.6	3.5
Utah	3.6	3.9	3.8	4.0	4.2	3.4	3.6	4.2	3.5
Vermont	4.5	—	3.7	—	—	—	—	—	—
Virginia	4.1	3.9	3.8	3.5	3.5	3.6	3.5	3.4	3.6
Washington	4.6	4.4	4.8	4.2	4.6	4.1	4.8	4.5	4.4
West Virginia	4.8	4.7	3.8	4.2	4.2	3.9	3.9	3.4	3.6
Wisconsin	3.6	3.7	3.6	3.5	3.3	3.3	3.6	3.5	3.6
Wyoming	4.9	4.8	3.6	—	3.9	4.7	4.0	5.8	5.1
United States	4.3	4.2	4.1	3.9	3.8	3.9	3.8	3.7	3.6

TABLE 4.13B

Postneonatal Mortality Rates, White, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	3.4	3.6	3.8	3.4	2.9	3.4	2.7	3.4	2.9
Alaska	—	4.9	—	—	—	4.9	4.6	4.5	4.2
Arizona	3.4	3.8	3.5	3.7	3.0	3.2	3.2	3.5	3.6
Arkansas	4.9	4.2	3.8	3.7	3.2	3.5	3.5	4.2	3.6
California	3.9	3.7	3.7	3.6	3.5	3.4	3.3	3.3	3.1
Colorado	4.2	4.1	3.4	3.6	3.5	4.3	4.3	3.8	3.2
Connecticut	1.9	2.6	3.1	2.3	2.1	3.1	2.7	1.9	2.0
Delaware	—	—	—	—	—	—	—	—	—
District of Columbia	—	—	—	—	—	—	—	—	—
Florida	3.7	3.8	3.5	3.3	2.9	3.5	2.8	3.2	2.8
Georgia	3.6	3.5	3.3	3.7	3.1	3.1	3.3	2.9	2.9
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	4.4	3.4	4.6	3.9	3.8	4.9	4.8	4.1	4.7
Illinois	3.4	3.4	3.6	3.0	3.1	3.0	2.9	2.8	2.9
Indiana	3.9	3.5	3.4	3.1	3.5	3.5	3.6	3.2	3.4
Iowa	3.6	3.2	3.8	3.4	3.8	3.1	2.9	3.6	2.9
Kansas	3.6	3.1	3.3	3.0	3.7	4.0	3.3	3.2	3.6
Kentucky	4.0	3.5	4.2	4.2	4.0	3.3	4.0	3.5	3.3
Louisiana	3.3	3.7	3.2	3.2	3.1	3.2	3.0	2.7	2.7
Maine	4.3	3.9	3.5	4.1	2.8	2.8	3.4	2.6	3.2
Maryland	3.0	3.2	3.1	2.9	2.6	2.9	3.1	3.0	3.0
Massachusetts	2.7	2.6	2.6	2.6	2.4	2.4	2.7	2.2	2.4
Michigan	4.0	2.8	3.3	3.4	2.9	3.2	3.0	3.1	3.0
Minnesota	3.5	3.3	3.5	3.5	3.3	3.4	3.4	3.4	3.3
Mississippi	3.2	3.8	3.4	3.5	3.5	3.7	3.0	3.7	2.9
Missouri	3.2	3.7	3.7	3.5	3.5	3.1	3.5	3.2	3.3
Montana	3.5	3.1	4.4	3.6	3.4	4.6	4.3	5.0	3.4
Nebraska	3.7	3.4	3.6	3.7	2.9	3.0	3.4	3.1	3.1
Nevada	3.8	5.3	3.6	4.4	3.6	4.6	4.4	4.2	3.6
New Hampshire	—	3.0	2.4	3.5	2.3	2.8	3.1	2.9	3.3
New Jersey	2.7	2.8	2.7	2.6	2.5	2.9	2.5	2.5	2.4
New Mexico	4.4	4.1	3.8	3.6	4.3	4.3	3.2	4.3	3.5
New York	3.1	3.3	3.1	3.2	3.0	2.9	2.8	2.8	2.7
North Carolina	3.8	3.2	3.7	3.6	3.6	3.5	3.2	3.3	3.0
North Dakota	3.4	2.7	4.0	3.7	3.2	—	3.2	3.1	4.2
Ohio	3.8	3.7	3.4	3.3	3.2	3.0	3.2	3.2	3.3
Oklahoma	4.7	3.8	4.4	4.4	4.9	3.9	3.9	4.0	4.1
Oregon	5.2	4.2	5.3	3.9	4.2	4.2	5.0	4.5	4.8
Pennsylvania	2.8	3.1	3.1	3.0	3.9	2.9	2.7	2.8	2.9
Rhode Island	—	3.2	—	—	—	—	2.7	—	2.8
South Carolina	3.9	3.6	3.2	4.3	3.8	4.2	3.3	3.0	3.2
South Dakota	2.8	4.1	3.8	3.0	—	3.0	3.8	3.5	4.3
Tennessee	4.0	3.9	3.8	3.2	3.5	3.7	3.4	3.4	3.1
Texas	4.0	3.7	3.6	3.7	3.5	4.0	3.6	3.3	3.2
Utah	3.6	3.7	3.9	4.0	4.1	3.5	3.6	4.2	3.5
Vermont	4.6	—	4.7	—	—	—	—	—	—
Virginia	3.5	3.2	3.5	3.1	3.1	3.2	2.8	2.8	3.0
Washington	4.5	4.4	4.4	3.8	4.5	3.8	4.6	4.6	4.5
West Virginia	4.8	4.6	3.6	4.1	4.3	3.8	3.8	3.3	3.5
Wisconsin	3.3	3.4	3.2	3.1	2.9	2.9	3.4	3.3	3.3
Wyoming	5.1	4.6	3.2	—	4.0	4.9	4.2	5.8	4.6
United States	3.6	3.5	3.5	3.4	3.3	3.3	3.3	3.2	3.1

TABLE 4.13C

Postneonatal Mortality Rates, Black, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	8.5	7.5	8.0	6.7	7.5	7.6	7.0	6.0	6.7
Alaska	—	—	—	—	—	—	—	—	—
Arizona	—	—	—	—	—	—	—	—	—
Arkansas	8.8	9.0	8.7	8.7	7.9	7.7	6.0	5.7	8.0
California	6.2	6.5	6.4	5.6	5.9	5.4	5.9	6.2	6.3
Colorado	—	—	—	—	—	—	—	—	—
Connecticut	—	—	—	—	—	—	—	—	—
Delaware	—	—	—	—	—	—	—	—	—
District of Columbia	8.0	5.6	7.3	6.6	5.9	6.2	5.5	5.5	5.6
Florida	7.9	8.4	8.4	7.6	6.5	7.7	7.5	6.1	6.5
Georgia	6.9	8.0	7.9	7.2	6.5	6.6	5.9	6.3	5.9
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—	—
Illinois	9.8	9.7	9.4	8.3	8.7	9.3	8.2	7.4	7.8
Indiana	8.8	7.0	8.4	8.2	5.9	7.1	6.8	5.6	6.6
Iowa	—	—	—	—	—	—	—	—	—
Kansas	—	—	—	—	—	—	—	—	—
Kentucky	7.6	6.3	7.0	8.4	5.4	4.4	—	6.3	—
Louisiana	8.5	7.8	6.1	6.6	7.3	6.9	5.8	6.4	6.3
Maine	—	—	—	—	—	—	—	—	—
Maryland	5.2	6.4	5.6	5.1	5.6	5.3	5.2	5.3	4.7
Massachusetts	—	—	—	—	—	—	5.4	6.8	4.9
Michigan	8.5	7.2	7.1	7.3	6.2	6.9	6.6	6.4	6.2
Minnesota	—	—	—	—	—	—	—	—	—
Mississippi	9.7	9.2	9.1	6.4	7.1	8.2	8.0	7.0	6.6
Missouri	8.8	7.0	7.8	6.6	8.0	5.8	6.8	6.8	7.0
Montana	—	—	—	—	—	—	—	—	—
Nebraska	—	—	—	—	—	—	—	—	—
Nevada	—	—	—	—	—	—	—	—	—
New Hampshire	—	—	—	—	—	—	—	—	—
New Jersey	7.4	7.5	8.7	6.7	7.8	7.1	7.4	7.0	6.8
New Mexico	—	—	—	—	—	—	—	—	—
New York	7.1	6.2	6.6	6.6	6.1	6.7	6.2	5.5	6.0
North Carolina	8.4	8.4	6.3	6.2	5.4	6.9	7.0	5.7	6.0
North Dakota	—	—	—	—	—	—	—	—	—
Ohio	6.4	6.7	8.6	6.5	6.1	6.4	6.6	6.1	6.2
Oklahoma	9.2	8.2	7.5	8.2	6.0	5.5	5.6	6.4	7.1
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	6.1	7.1	7.2	6.7	6.7	6.7	6.6	6.8	6.5
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	9.6	9.1	7.2	6.8	7.8	6.8	7.6	6.2	6.3
South Dakota	—	—	—	—	—	—	—	—	—
Tennessee	5.8	6.5	6.5	5.7	6.2	6.9	5.4	5.4	7.2
Texas	7.0	7.8	6.4	5.6	6.3	5.7	6.1	6.0	5.9
Utah	—	—	—	—	—	—	—	—	—
Vermont	—	—	—	—	—	—	—	—	—
Virginia	6.1	6.0	5.1	4.8	5.1	5.2	6.0	5.5	5.5
Washington	—	—	—	—	—	—	—	—	—
West Virginia	—	—	—	—	—	—	—	—	—
Wisconsin	5.8	7.6	7.8	7.1	7.7	7.0	6.5	5.8	6.0
Wyoming	—	—	—	—	—	—	—	—	—
United States	7.6	7.5	7.3	6.6	6.5	6.8	6.2	6.1	6.3

TABLE 4.13D

Postneonatal Mortality Rates, Nonwhite, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	8.4	7.4	7.9	6.8	7.4	7.4	6.8	6.0	6.5
Alaska	—	—	—	—	—	—	—	8.8	—
Arizona	7.2	9.4	7.4	7.9	6.6	5.6	7.4	5.1	5.5
Arkansas	8.6	8.8	9.4	8.3	7.5	7.4	5.7	5.6	7.7
California	4.7	4.7	4.5	4.1	3.9	3.7	4.0	4.3	4.1
Colorado	—	—	—	—	—	—	—	—	—
Connecticut	—	—	—	—	—	—	—	—	—
Delaware	—	—	—	—	—	—	—	—	—
District of Columbia	7.9	5.5	7.2	6.5	6.0	6.2	5.6	5.3	5.4
Florida	7.6	8.1	8.1	7.4	6.3	7.3	7.2	5.9	6.3
Georgia	7.7	7.8	7.8	7.1	6.4	6.6	5.7	6.2	5.8
Hawaii	3.4	3.3	3.1	2.9	2.9	3.0	3.6	3.4	3.0
Idaho	—	—	—	—	—	—	—	—	—
Illinois	9.1	9.1	8.8	7.6	8.0	8.5	7.7	6.9	7.4
Indiana	8.4	6.6	8.0	7.8	5.5	6.8	6.5	5.2	6.1
Iowa	—	—	—	—	—	—	—	—	—
Kansas	—	—	—	—	—	—	—	—	—
Kentucky	5.4	6.6	7.8	—	5.4	6.6	—	6.0	—
Louisiana	8.4	7.6	6.1	6.4	7.0	6.7	5.6	6.3	6.1
Maine	—	—	—	—	—	—	—	—	—
Maryland	5.1	6.1	5.2	4.7	5.3	5.1	4.9	5.0	4.3
Massachusetts	5.1	—	—	4.3	4.0	4.2	4.7	5.7	4.2
Michigan	7.9	6.8	6.6	6.8	5.9	6.7	6.4	5.9	5.8
Minnesota	—	—	7.8	5.6	6.4	—	—	—	7.3
Mississippi	9.6	9.1	8.9	6.4	7.2	8.1	8.0	7.0	6.6
Missouri	8.5	6.7	7.5	6.2	7.7	5.6	6.3	6.3	6.6
Montana	—	—	—	—	—	—	—	—	—
Nebraska	—	—	—	—	—	—	—	—	—
Nevada	—	—	—	—	—	—	—	—	—
New Hampshire	—	—	—	—	—	—	—	—	—
New Jersey	6.9	7.0	7.8	6.2	7.1	6.6	6.5	6.3	5.9
New Mexico	8.5	10.0	—	—	—	—	—	—	6.9
New York	6.8	5.7	5.9	5.9	5.6	6.3	5.7	5.1	5.3
North Carolina	8.0	8.2	6.1	6.0	5.4	6.6	6.7	5.5	5.8
North Dakota	—	—	—	—	—	—	—	—	—
Ohio	6.1	6.4	8.2	6.1	5.8	6.2	6.3	5.8	6.0
Oklahoma	7.5	7.4	5.6	5.8	4.8	4.4	4.1	4.1	4.7
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	5.8	6.7	6.9	6.3	6.3	6.4	6.3	6.3	6.0
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	9.4	8.9	7.1	6.7	7.7	6.7	7.4	6.1	6.2
South Dakota	—	—	—	—	—	15.2	—	—	15.5
Tennessee	5.7	5.6	6.3	5.5	6.0	6.9	5.3	5.2	7.2
Texas	6.6	7.5	6.0	5.4	5.7	5.3	5.7	5.5	5.4
Utah	—	—	—	—	—	—	—	—	—
Vermont	—	—	—	—	—	—	—	—	—
Virginia	5.6	5.6	4.7	4.5	4.7	4.7	5.5	5.2	5.2
Washington	6.5	—	6.7	6.6	[illegible]	6.0	6.0	4.2	—
West Virginia	—	—	—	—	—	—	—	—	—
Wisconsin	5.7	6.8	6.9	6.9	[illegible]	6.9	5.9	5.5	5.8
Wyoming	—	—	—	—	—	—	—	—	—
United States	7.1	6.9	6.6	6.0	6.0	6.0	5.8	5.5	5.6

TABLE 4.14A

Percentage of Infants Born at Low Birthweight, All Races, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	8.4	8.0	7.9	7.9	7.9	7.9	7.9	8.0	8.0
Alaska	5.3	5.7	5.4	4.9	4.9	4.7	4.8	4.9	4.6
Arizona	6.1	6.0	6.2	6.1	5.9	6.1	6.1	6.2	6.2
Arkansas	7.9	7.1	7.6	7.4	7.4	7.8	7.5	8.0	7.6
California	6.4	6.0	5.9	5.9	5.9	6.0	5.9	6.0	6.0
Connecticut	6.7	7.2	6.7	6.8	6.8	6.4	6.6	6.6	6.6
Delaware	7.2	7.6	7.7	7.8	7.3	7.2	7.4	7.3	7.4
District of Columbia	13.1	12.7	12.8	13.3	13.4	13.1	12.5	13.3	12.2
Florida	7.8	7.8	7.6	7.4	7.5	7.4	7.4	7.5	7.6
Georgia	8.7	8.6	8.6	8.5	8.5	8.4	8.3	8.1	8.1
Hawaii	7.2	7.0	7.1	6.8	7.3	7.0	7.2	6.5	6.9
Idaho	5.6	5.2	5.3	5.1	5.3	5.6	5.1	5.5	5.2
Illinois	7.4	7.4	7.2	7.4	7.2	7.2	7.1	7.2	7.4
Indiana	6.5	6.5	6.3	6.3	6.4	6.3	6.3	6.4	6.4
Iowa	5.3	5.2	5.0	5.0	4.8	5.0	4.9	5.1	5.2
Kansas	6.3	6.4	5.8	6.3	6.2	6.1	6.1	6.1	6.2
Kentucky	7.1	7.0	6.8	7.0	6.9	6.9	6.9	7.0	7.1
Louisiana	8.9	8.2	8.6	8.5	8.4	8.6	8.5	8.7	8.6
Maine	5.4	5.2	5.2	5.3	5.1	5.6	5.5	5.1	5.1
Maryland	7.8	7.7	8.2	7.7	7.4	7.7	7.4	7.6	7.7
Massachusetts	6.5	6.1	6.1	6.0	5.9	5.9	5.9	5.8	5.8
Michigan	7.2	7.0	6.9	6.9	6.9	7.0	7.0	6.8	6.9
Minnesota	5.3	5.1	5.1	5.3	4.9	5.1	4.9	4.8	5.1
Mississippi	8.8	8.7	8.7	8.6	8.8	8.8	8.7	8.8	8.7
Missouri	7.0	6.7	6.6	6.7	6.6	6.7	6.7	6.7	6.8
Montana	5.6	5.6	5.6	5.5	5.6	5.6	5.8	5.7	5.9
Nebraska	5.8	5.6	5.6	5.5	5.5	5.4	5.4	5.3	5.5
Nevada	7.4	7.3	6.6	7.0	6.4	7.0	6.7	6.9	7.4
New Hampshire	5.6	5.9	5.4	5.0	5.2	5.1	5.8	5.0	5.2
New Jersey	7.5	7.3	7.2	7.1	6.9	7.2	7.0	6.8	6.8
New Mexico	8.6	8.3	7.6	7.4	7.8	7.6	7.6	7.1	7.1
New York	7.7	7.6	7.4	7.4	7.2	7.2	7.0	7.0	7.3
North Carolina	8.1	8.1	7.9	7.9	8.0	7.8	7.8	7.9	7.9
North Dakota	5.4	5.1	4.9	4.5	4.8	4.7	4.8	4.9	4.9
Ohio	7.0	6.8	6.8	6.7	6.6	6.7	6.4	6.6	6.7
Oklahoma	7.1	6.5	6.8	6.6	6.8	6.7	6.3	6.4	6.5
Oregon	5.1	5.2	4.9	4.8	4.9	5.0	5.2	5.1	5.1
Pennsylvania	6.9	6.8	6.5	6.5	6.5	6.7	6.6	6.6	6.9
Rhode Island	6.4	6.6	6.3	5.9	6.1	6.4	6.0	6.3	6.4
South Carolina	8.9	8.8	8.6	8.9	8.9	8.6	8.8	8.6	8.6
South Dakota	5.2	5.0	5.1	5.3	5.1	5.1	5.1	5.5	5.3
Tennessee	8.1	7.9	8.0	8.0	7.9	8.0	7.9	7.9	7.9
Texas	7.3	7.0	6.9	6.9	6.9	6.9	6.8	6.8	6.8
Utah	5.7	5.5	5.2	5.3	5.6	5.6	5.6	5.7	5.4
Vermont	6.2	6.1	5.9	6.2	5.9	5.9	6.1	6.0	5.2
Virginia	7.4	7.5	7.5	7.3	7.2	7.2	7.2	7.0	7.0
Washington	5.6	5.2	5.1	5.2	5.1	5.2	5.1	5.3	5.2
West Virginia	6.8	6.8	6.7	7.1	6.7	6.7	6.9	6.9	7.0
Wisconsin	5.6	5.5	5.4	5.3	5.0	5.4	5.1	5.3	5.4
Wyoming	7.8	7.5	7.3	6.6	7.2	7.1	7.1	7.1	6.8
United States	7.1	6.9	6.8	6.8	6.8	6.8	6.7	6.8	6.8

TABLE 4.14B

Percentage of Infants Born at Low Birthweight, White, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	6.2	5.8	5.6	5.8	5.7	6.0	5.7	6.0	6.0
Alaska	4.8	5.2	5.0	4.5	4.2	4.5	4.3	4.5	3.9
Arizona	5.8	5.8	5.9	5.8	5.8	5.8	5.9	5.9	6.0
Arkansas	6.1	5.7	5.9	5.8	5.8	6.1	6.0	6.6	6.3
California	5.6	5.3	5.2	5.2	5.2	5.3	5.1	5.3	5.2
Colorado	7.8	7.8	7.9	7.8	7.4	7.6	7.3	7.4	7.3
Connecticut	5.8	6.3	6.1	5.8	5.8	5.6	5.6	5.7	5.6
Delaware	5.4	5.9	5.4	5.5	5.7	5.3	6.1	5.7	6.0
District of Columbia	6.7	5.8	6.3	5.8	5.8	6.7	5.1	5.2	5.0
Florida	6.2	6.1	6.0	5.9	5.9	5.9	6.0	6.0	6.0
Georgia	6.1	6.3	6.4	6.0	6.1	6.1	5.9	6.1	6.0
Hawaii	5.6	5.7	6.0	5.7	6.4	5.8	6.1	5.2	5.4
Idaho	5.6	5.1	5.3	5.0	5.3	5.5	5.0	5.5	5.1
Illinois	5.6	5.6	5.4	5.5	5.5	5.3	5.3	5.4	5.5
Indiana	5.8	5.8	5.6	5.6	5.7	5.6	5.7	5.8	5.7
Iowa	5.1	4.8	4.8	4.8	4.6	4.9	4.7	5.0	5.0
Kansas	5.8	5.8	5.3	5.7	5.6	5.5	5.5	5.5	5.6
Kentucky	6.4	6.5	6.3	6.6	6.5	6.4	6.4	6.5	6.5
Louisiana	6.3	6.0	6.0	5.9	5.8	5.8	5.7	5.9	5.8
Maine	5.3	5.2	5.2	5.3	5.1	5.6	5.4	5.1	5.1
Maryland	5.9	5.8	6.1	5.8	5.4	5.5	5.4	5.4	5.5
Massachusetts	6.1	5.7	5.7	5.6	5.5	5.4	5.5	5.4	5.3
Michigan	5.9	5.8	5.7	5.7	5.6	5.6	5.5	5.4	5.4
Minnesota	5.1	4.9	4.9	5.0	4.7	4.9	4.7	4.6	4.7
Mississippi	6.0	5.7	5.8	5.6	6.0	5.9	6.0	5.9	6.0
Missouri	5.8	5.6	5.6	5.7	5.5	5.5	5.6	5.6	5.7
Montana	5.9	5.6	5.5	5.5	5.6	5.5	5.7	5.6	5.9
Nebraska	5.4	5.2	5.2	5.0	5.0	5.0	5.0	4.9	5.2
Nevada	6.6	6.6	6.0	6.4	5.8	6.5	6.1	6.1	6.6
New Hampshire	5.6	5.9	5.3	5.0	5.2	5.0	5.0	5.0	5.2
New Jersey	5.8	5.8	5.8	5.6	5.4	5.7	5.7	5.5	5.4
New Mexico	8.6	8.1	7.6	7.4	7.9	7.6	7.8	7.3	7.2
New York	6.3	6.3	6.1	6.1	5.9	5.9	5.7	5.6	5.8
North Carolina	6.3	6.2	6.1	6.0	6.0	5.9	6.1	6.0	6.1
North Dakota	5.1	4.9	4.8	4.4	4.7	4.6	4.5	4.8	4.7
Ohio	6.0	5.7	5.7	5.7	5.7	5.7	5.5	5.7	5.7
Oklahoma	6.4	6.0	6.2	6.2	6.3	6.1	5.8	5.9	5.9
Oregon	5.0	5.0	4.7	4.6	4.7	4.8	5.0	4.9	5.0
Pennsylvania	5.8	5.8	5.6	5.5	5.5	5.6	5.5	5.5	5.6
Rhode Island	5.8	6.2	5.9	5.4	5.5	6.0	5.6	5.9	6.0
South Carolina	6.0	6.2	5.9	6.2	6.2	6.1	6.2	5.9	6.1
South Dakota	5.1	5.0	4.8	4.9	4.8	4.8	4.8	5.2	4.9
Tennessee	6.7	6.5	6.4	6.4	6.4	6.5	6.4	6.4	6.5
Texas	6.2	6.1	6.0	6.0	6.0	6.0	6.0	5.9	5.9
Utah	5.7	5.4	5.1	5.3	5.5	5.5	5.4	5.6	5.3
Vermont	6.2	6.1	6.0	6.2	5.9	5.9	6.2	6.0	5.1
Virginia	5.9	6.0	5.8	5.8	5.6	5.7	5.7	5.5	5.6
Washington	5.3	4.9	4.8	4.9	4.7	5.0	4.7	5.0	4.8
West Virginia	6.6	6.5	6.4	6.9	6.6	6.5	6.6	6.7	6.8
Wisconsin	5.1	5.0	4.8	4.7	4.5	4.8	4.6	4.6	4.7
Wyoming	7.7	7.4	7.2	6.5	7.1	7.0	7.1	7.1	6.8
United States Total	5.9	5.8	5.7	5.7	5.6	5.7	5.6	5.6	5.6

TABLE 4.14C

Percentage of Infants Born at Low Birthweight, Black, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	12.4	11.8	12.0	11.8	11.9	11.6	12.1	12.0	11.9
Alaska	8.7	—	—	7.5	8.6	—	7.1	10.6	8.0
Arizona	11.5	11.3	11.1	11.4	9.1	12.7	11.9	12.4	11.2
Arkansas	13.0	11.3	12.7	12.3	12.3	13.1	12.3	12.5	12.0
California	12.0	11.0	11.4	11.2	11.0	11.4	11.4	11.9	11.9
Colorado	15.4	14.2	14.4	12.3	12.4	13.3	13.0	13.1	14.4
Connecticut	13.3	13.5	11.5	14.3	13.4	12.6	12.9	13.5	12.9
Delaware	13.1	13.0	15.6	14.9	12.6	12.7	11.8	12.9	12.1
District of Columbia	14.3	14.0	14.0	14.9	15.1	14.6	14.2	15.3	14.2
Florida	12.3	12.4	12.2	11.9	11.9	12.0	11.9	12.4	12.7
Georgia	13.3	12.6	12.4	12.8	12.7	12.7	12.6	11.7	12.1
Hawaii	8.3	9.1	10.1	9.1	9.4	10.9	9.0	9.5	8.0
Idaho	—	—	—	—	—	—	—	—	—
Illinois	13.6	13.8	13.6	14.2	13.6	13.9	13.8	13.5	14.2
Indiana	12.1	12.5	12.1	11.9	12.0	12.2	11.7	11.7	11.9
Iowa	13.1	11.0	12.2	10.0	10.9	11.9	10.6	10.2	12.1
Kansas	12.1	12.5	11.6	12.2	12.2	12.0	12.1	12.1	12.0
Kentucky	13.1	12.3	11.9	11.5	11.3	12.3	12.0	12.2	12.5
Louisiana	12.8	12.6	12.8	12.8	12.8	13.4	13.1	13.1	12.9
Maine	—	—	—	—	—	—	—	—	—
Maryland	12.4	12.0	13.0	12.1	12.1	12.7	12.0	12.5	12.6
Massachusetts	11.7	11.1	10.9	10.9	11.0	11.4	11.0	10.3	10.8
Michigan	13.5	13.4	12.9	13.2	13.8	14.2	14.2	13.6	13.9
Minnesota	12.0	10.5	12.1	11.8	10.4	12.3	10.6	9.8	13.1
Mississippi	11.8	12.0	11.8	11.8	12.0	12.0	11.7	12.2	11.7
Missouri	13.4	12.6	12.9	12.5	12.6	13.1	12.6	12.9	12.6
Montana	—	—	—	—	—	—	—	—	—
Nebraska	13.5	12.4	12.6	12.7	12.9	11.3	11.6	12.0	11.2
Nevada	13.0	12.4	11.6	12.5	11.6	10.3	10.2	12.3	14.0
New Hampshire	—	—	—	—	—	—	—	—	—
New Jersey	13.6	13.2	12.7	13.3	12.9	12.8	12.4	12.2	12.7
New Mexico	15.6	15.2	7.8	11.3	11.7	12.5	9.8	10.5	8.9
New York	13.0	12.9	12.4	12.3	12.1	12.0	11.7	11.9	12.6
North Carolina	12.2	12.5	12.2	12.1	12.4	12.4	12.2	12.7	12.2
North Dakota	—	—	—	—	—	—	—	—	—
Ohio	13.4	13.0	12.9	13.0	12.6	13.1	12.2	11.9	12.1
Oklahoma	13.1	11.8	12.3	11.3	12.6	11.9	11.5	12.0	11.4
Oregon	10.4	11.0	10.4	10.2	10.6	9.7	10.9	11.6	10.0
Pennsylvania	13.5	13.8	13.0	13.4	13.2	13.8	13.9	13.4	13.9
Rhode Island	13.4	11.4	11.5	11.2	12.4	11.0	11.6	10.7	12.1
South Carolina	13.2	12.7	12.6	12.8	13.0	12.6	12.7	13.0	12.4
South Dakota	—	—	—	—	—	—	—	—	—
Tennessee	13.3	12.7	13.6	13.7	13.2	13.3	13.2	12.9	12.6
Texas	13.1	12.6	12.4	12.8	12.2	12.6	12.2	12.2	12.3
Utah	—	—	—	—	11.2	10.3	—	10.4	9.3
Vermont	—	—	—	—	—	—	—	—	—
Virginia	12.0	11.8	12.3	12.0	12.2	12.1	12.0	11.5	11.3
Washington	10.6	9.4	10.2	10.3	10.1	9.3	10.5	10.5	10.7
West Virginia	11.9	13.1	12.3	11.7	10.0	11.1	13.4	11.7	11.8
Wisconsin	12.5	12.7	12.7	12.6	12.1	12.8	12.1	12.6	12.1
Wyoming	—	—	—	—	—	—	—	—	—
United States	12.9	12.6	12.5	12.5	12.4	12.6	12.4	12.4	12.5

TABLE 4.14D

Percentage of Infants Born at Low Birthweight, Nonwhite, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	12.3	11.8	11.9	11.8	11.8	11.6	12.0	12.0	11.8
Alaska	6.7	7.1	6.3	5.9	6.5	5.0	6.1	5.9	6.2
Arizona	7.6	7.0	7.4	7.8	6.6	7.3	7.4	7.7	7.0
Arkansas	12.8	11.1	12.5	12.1	12.0	12.8	12.0	12.4	11.7
California	9.9	9.1	9.1	8.9	8.6	8.7	8.7	8.7	8.8
Colorado	12.7	12.5	12.4	10.6	11.2	11.6	11.0	11.4	12.0
Connecticut	12.7	12.9	11.0	13.2	12.6	11.8	12.2	12.6	12.2
Delaware	12.8	12.7	15.1	14.6	12.6	12.5	11.4	12.5	11.7
District of Columbia	14.2	14.0	13.9	14.8	15.1	14.5	14.2	15.0	13.6
Florida	12.0	12.1	11.9	11.7	11.7	11.8	11.6	12.1	12.4
Georgia	13.1	12.4	12.3	12.7	12.5	12.6	12.5	11.6	11.9
Hawaii	7.7	7.4	7.4	7.2	7.6	7.5	7.6	6.9	7.3
Idaho	6.9	8.7	7.1	7.4	6.2	6.8	7.9	7.1	7.3
Illinois	13.1	13.2	13.0	13.5	12.9	13.3	13.1	12.9	13.6
Indiana	11.9	12.2	11.7	11.4	11.6	11.8	11.2	11.4	11.5
Iowa	11.5	15.2	10.5	8.5	9.0	9.4	8.8	8.5	10.2
Kansas	10.9	11.4	10.2	10.7	11.0	10.9	10.9	10.9	10.7
Kentucky	12.7	11.6	11.5	11.3	10.8	11.6	11.1	11.8	12.1
Louisiana	12.7	11.6	12.6	12.6	12.5	13.1	12.8	12.8	12.6
Maine	—	—	—	—	—	—	—	—	—
Maryland	12.0	11.7	12.6	11.7	11.6	12.1	11.6	12.0	12.0
Massachusetts	10.6	10.2	10.0	10.0	9.9	10.1	9.8	9.0	9.5
Michigan	13.0	12.8	12.3	12.6	13.0	13.6	13.5	12.8	13.1
Minnesota	9.3	8.7	8.6	9.1	8.2	8.4	7.8	7.6	9.2
Mississippi	11.7	11.8	11.7	11.7	12.0	11.9	11.6	12.1	11.6
Missouri	13.0	12.3	12.3	12.2	12.2	12.7	12.3	12.4	12.2
Montana	6.3	5.9	6.7	6.0	5.8	6.4	6.9	6.0	5.4
Nebraska	11.3	10.2	11.1	11.2	11.2	10.0	9.7	10.0	9.5
Nevada	11.6	11.1	9.8	9.6	9.5	9.1	9.6	10.7	11.3
New Hampshire	—	—	—	—	—	—	—	—	—
New Jersey	13.1	12.7	12.1	12.5	12.2	12.2	11.6	11.4	11.8
New Mexico	8.7	9.4	7.3	7.1	7.4	7.4	6.6	6.0	6.4
New York	12.3	12.1	11.5	11.5	11.3	11.3	10.9	11.1	11.7
North Carolina	11.8	12.1	11.8	11.8	12.1	12.1	11.7	12.2	11.8
North Dakota	8.9	7.0	6.7	5.4	5.7	5.9	7.3	5.9	6.5
Ohio	12.9	12.7	12.6	12.6	12.1	12.7	11.8	11.4	11.8
Oklahoma	9.7	8.7	8.8	8.4	8.9	8.9	8.3	8.5	8.5
Oregon	7.9	8.1	8.2	8.1	7.8	7.4	7.4	7.5	6.5
Pennsylvania	13.1	13.4	12.5	12.9	12.6	13.2	13.3	12.8	13.3
Rhode Island	12.0	10.7	10.8	10.3	11.0	10.3	10.1	9.7	10.2
South Carolina	13.0	12.6	12.4	12.7	12.8	12.4	12.6	12.8	12.3
South Dakota	6.2	5.6	7.1	8.0	6.9	7.0	6.3	7.0	7.1
Tennessee	13.1	12.5	13.4	13.4	13.0	13.0	13.0	12.7	12.4
Texas	12.7	12.2	11.8	12.1	11.5	11.9	11.5	11.4	11.6
Utah	5.7	6.9	6.0	6.3	7.5	7.0	8.7	6.7	6.8
Vermont	—	—	—	—	—	—	—	—	—
Virginia	11.6	11.4	12.0	11.5	11.7	11.5	11.4	10.9	10.9
Washington	8.2	7.1	7.3	8.0	7.6	7.2	8.0	7.4	7.9
West Virginia	11.4	12.4	11.9	11.1	10.0	10.8	12.8	11.0	11.3
Wisconsin	11.0	11.0	11.1	10.9	10.3	11.2	10.3	10.8	10.4
Wyoming	9.5	9.6	8.3	7.5	8.3	8.5	—	7.1	7.8
United States	11.9	11.6	11.4	11.4	11.2	11.4	11.1	11.1	11.2

TABLE 4.15A

Percentage of Infants Born to Women Receiving Early Prenatal Care, All Races, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	71.2	70.9	71.7	72.3	72.5	73.2	73.6	73.2	73.2
Alaska	71.6	74.4	75.1	75.0	76.6	75.2	75.7	75.3	77.2
Arizona	66.6	69.0	70.2	73.6	74.2	72.6	71.7	71.3	71.6
Arkansas	68.5	69.8	70.1	70.1	68.9	68.1	68.9	69.0	69.5
California	73.2	75.2	76.5	76.9	77.1	77.1	76.9	75.7	75.4
Colorado	76.7	77.2	78.9	78.2	76.1	76.4	77.2	77.6	77.6
Connecticut	86.3	86.8	86.8	86.1	85.8	85.7	85.6	85.8	85.8
Delaware	75.2	74.5	78.6	78.6	78.2	76.6	78.0	77.8	78.2
District of Columbia	58.1	62.7	67.5	65.6	61.4	59.0	60.3	59.4	59.3
Florida	69.8	69.2	69.3	69.3	67.9	68.2	67.7	67.9	68.4
Georgia	71.5	73.2	74.5	74.0	73.0	75.2	75.8	74.8	73.5
Hawaii	72.0	75.1	76.5	76.9	74.8	74.1	75.8	75.4	77.5
Idaho	74.2	75.2	75.6	76.4	75.8	75.7	76.5	76.2	76.1
Illinois	74.2	75.1	75.4	76.5	76.9	77.8	77.9	77.9	78.4
Indiana	77.3	78.3	78.7	78.5	77.7	77.2	78.0	77.4	77.3
Iowa	83.6	84.4	84.3	84.9	84.4	85.6	85.3	85.4	85.7
Kansas	78.9	79.8	80.8	80.6	80.4	81.2	81.5	81.1	81.2
Kentucky	69.6	70.7	72.1	73.9	74.9	75.0	75.6	76.2	75.6
Louisiana	75.1	76.3	78.1	77.8	77.3	78.3	77.6	78.3	78.6
Maine	78.6	80.5	80.9	81.5	81.6	84.0	82.8	82.0	83.1
Maryland	81.2	79.6	80.9	79.5	78.7	78.5	79.3	80.0	80.3
Massachusetts	87.8	88.5	88.7	89.1	88.0	85.6	85.6	85.1	84.0
Michigan	76.9	78.6	80.0	80.5	80.9	81.2	81.4	81.7	80.4
Minnesota	76.0	77.3	77.9	77.6	77.9	79.1	79.9	79.5	80.0
Mississippi	72.1	73.6	74.8	74.4	74.1	74.6	74.8	75.0	76.0
Missouri	75.2	78.5	79.3	78.9	79.1	79.2	79.9	80.3	80.0
Montana	78.4	77.6	79.2	79.5	78.9	79.2	79.0	78.4	77.3
Nebraska	77.7	78.6	79.6	79.8	79.7	80.6	79.9	80.4	81.6
Nevada	74.7	72.9	73.6	75.8	74.1	74.1	75.8	74.5	73.7
New Hampshire	80.5	82.4	84.1	84.5	83.9	84.8	84.6	84.7	83.7
New Jersey	77.4	78.2	79.1	79.6	80.0	80.7	82.0	81.8	81.3
New Mexico	—	—	60.1	60.0	60.9	61.5	61.2	58.6	58.4
New York	69.1	70.9	71.9	71.2	71.0	71.2	72.2	72.4	71.7
North Carolina	74.4	75.9	76.6	76.7	77.5	77.8	78.2	77.9	77.7
North Dakota	76.7	78.3	78.2	79.6	79.3	81.5	82.0	82.7	82.1
Ohio	78.8	79.9	80.5	80.3	81.0	81.0	81.7	82.2	82.2
Oklahoma	68.8	68.2	68.0	68.1	67.6	67.4	69.4	70.6	71.5
Oregon	74.2	76.3	78.0	77.6	76.9	77.5	77.1	75.1	73.9
Pennsylvania	79.8	79.0	79.5	79.6	79.4	79.0	78.9	78.8	78.0
Rhode Island	87.3	88.2	87.4	88.0	87.0	84.7	85.5	86.0	85.4
South Carolina	70.4	70.2	70.5	68.4	66.9	66.5	67.6	68.3	67.3
South Dakota	69.3	69.9	69.1	71.5	70.9	72.1	72.7	73.4	74.1
Tennessee	72.4	74.1	74.4	74.3	73.8	74.7	75.7	75.1	75.2
Texas	70.9	71.9	69.1	68.4	68.1	67.7	68.1	67.6	66.8
Utah	81.7	82.5	81.4	81.1	81.8	82.3	82.0	81.7	82.0
Vermont	78.7	79.2	78.0	77.6	81.6	82.9	82.3	80.0	78.9
Virginia	81.0	81.7	81.2	81.3	80.9	80.6	80.3	79.8	80.1
Washington	78.4	79.7	79.6	79.7	77.6	77.6	78.1	77.8	77.4
West Virginia	65.1	66.8	69.0	69.8	70.5	72.0	71.2	71.5	70.6
Wisconsin	82.1	82.5	83.2	83.7	83.6	83.8	84.1	82.9	82.8
Wyoming	76.1	75.5	75.9	78.1	78.6	78.7	80.6	79.4	80.0
United States	74.9	75.9	76.3	76.4	76.1	76.2	76.5	76.2	75.9

TABLE 4.15B

Percentage of Infants Born to Women Receiving Early Prenatal Care, White, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	80.1	80.0	80.0	80.9	81.2	81.3	81.5	81.0	80.6
Alaska	76.3	78.1	78.5	79.2	80.1	79.0	78.8	78.4	80.6
Arizona	69.6	71.4	72.3	75.7	76.0	74.8	74.1	73.5	73.7
Arkansas	74.3	75.3	75.3	75.1	74.4	73.9	73.8	74.2	74.6
California	73.6	75.5	76.8	77.2	77.5	77.6	77.5	76.4	75.9
Colorado	77.5	78.0	79.7	79.1	77.1	77.2	77.9	78.5	78.4
Connecticut	88.3	88.8	89.0	88.6	88.4	88.7	88.5	88.6	88.6
Delaware	80.3	79.2	82.5	82.5	82.6	82.1	81.9	82.6	83.0
District of Columbia	70.9	74.6	78.5	78.9	76.0	76.0	75.7	78.9	79.3
Florida	75.8	75.0	75.2	75.2	73.7	74.1	73.3	73.9	74.1
Georgia	79.3	80.4	81.7	81.2	80.7	81.8	82.6	81.2	80.2
Hawaii	73.7	76.9	79.3	80.2	75.9	75.1	78.5	78.3	82.6
Idaho	74.6	75.4	75.9	76.8	76.1	76.0	76.8	76.6	76.4
Illinois	77.8	78.8	78.7	79.9	80.7	81.5	81.6	81.7	82.2
Indiana	78.7	79.8	80.4	80.2	79.6	79.5	79.9	79.5	79.5
Iowa	84.1	84.8	84.8	85.4	84.9	86.1	86.0	85.9	86.2
Kansas	80.0	80.9	81.9	82.1	82.1	82.8	83.1	82.6	83.1
Kentucky	71.7	73.1	74.1	75.6	76.6	76.6	77.2	77.6	77.0
Louisiana	85.0	85.3	85.3	85.2	85.2	85.9	85.8	85.2	85.9
Maine	78.7	80.6	81.1	81.7	82.0	84.1	82.9	82.1	83.3
Maryland	85.5	84.3	85.4	84.7	84.2	84.3	85.4	86.0	86.4
Massachusetts	88.4	89.2	89.6	89.9	88.8	86.6	86.6	86.4	85.6
Michigan	79.1	80.7	82.0	82.5	82.9	83.3	83.3	83.9	82.9
Minnesota	76.8	78.2	79.1	79.2	79.6	80.6	81.5	81.2	82.0
Mississippi	83.3	84.3	85.3	84.6	85.0	85.1	85.3	85.3	84.9
Missouri	80.4	80.7	81.4	81.2	81.2	81.7	82.3	82.6	82.3
Montana	80.2	79.6	81.1	81.8	81.1	81.6	81.7	81.0	79.9
Nebraska	78.8	79.7	80.6	80.9	81.1	81.9	81.6	81.8	82.9
Nevada	77.0	75.6	76.2	78.1	76.6	76.7	77.9	77.2	76.0
New Hampshire	80.6	82.5	84.1	84.6	84.1	84.9	84.7	84.6	83.9
New Jersey	82.4	82.5	83.5	83.8	83.9	84.6	85.5	85.2	84.8
New Mexico	—	—	63.4	63.1	63.6	64.2	63.5	61.1	60.1
New York	75.4	77.1	78.2	77.1	77.5	77.5	78.2	78.2	77.7
North Carolina	81.7	83.0	83.2	83.3	83.7	83.9	84.0	83.6	83.9
North Dakota	78.3	79.8	80.0	81.0	81.2	82.8	83.5	84.3	83.8
Ohio	81.0	82.0	82.5	82.5	83.2	83.5	84.1	84.6	84.4
Oklahoma	72.6	71.8	72.0	72.3	71.5	71.6	73.6	74.2	75.6
Oregon	74.8	76.9	78.8	78.7	77.9	78.3	77.8	75.9	74.6
Pennsylvania	82.4	81.9	82.3	82.5	82.3	81.9	81.9	82.5	82.3
Rhode Island	88.1	89.0	88.4	89.2	88.3	86.9	87.4	87.9	87.4
South Carolina	79.4	79.2	79.5	77.7	75.7	76.0	76.7	77.4	76.5
South Dakota	73.0	74.2	73.1	75.6	75.3	76.8	76.7	77.5	78.5
Tennessee	76.3	77.6	77.7	77.8	77.5	78.3	79.5	78.6	78.7
Texas	73.1	73.9	70.9	70.1	69.8	69.3	69.6	69.2	68.4
Utah	82.3	83.2	82.1	81.9	82.6	83.0	82.9	82.8	83.0
Vermont	78.8	79.2	78.0	77.7	81.6	83.0	82.4	80.1	79.0
Virginia	83.8	84.5	84.1	84.3	84.3	84.4	84.4	83.9	84.3
Washington	79.7	80.9	80.9	80.5	79.2	79.2	79.5	79.3	78.8
West Virginia	65.7	67.4	69.6	70.5	71.3	72.7	71.9	72.2	71.3
Wisconsin	83.4	84.0	84.7	85.3	85.2	85.6	86.1	85.2	85.5
Wyoming	76.5	76.2	76.5	78.5	79.1	79.3	81.0	80.2	80.6
United States	78.2	79.1	79.3	79.4	79.3	79.4	79.6	79.4	79.2

TABLE 4.15C

Percentage of Infants Born to Women Receiving Early Prenatal Care, Black, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	54.7	54.6	56.7	56.5	56.5	58.0	58.8	58.1	59.0
Alaska	62.7	73.1	75.5	69.9	74.1	73.7	69.8	67.7	71.6
Arizona	58.5	61.5	59.7	67.8	71.7	69.0	64.9	65.1	66.3
Arkansas	51.4	53.6	54.7	55.0	51.6	49.6	53.2	52.0	52.7
California	70.6	73.1	74.3	74.7	73.4	72.6	71.9	69.0	69.0
Colorado	66.3	68.1	69.7	70.8	67.4	67.5	69.7	69.0	67.7
Connecticut	69.6	71.0	71.1	69.0	66.6	64.8	66.3	65.8	66.9
Delaware	59.0	59.1	66.0	66.2	63.1	59.9	64.3	61.6	63.0
District of Columbia	55.5	60.2	65.5	62.7	57.9	54.9	56.7	55.4	56.0
Florida	53.4	52.6	52.4	52.3	50.9	50.8	50.1	49.1	50.5
Georgia	58.3	60.6	[illegible]	61.5	59.6	63.1	63.2	62.9	61.1
Hawaii	68.8	69.8	[illegible]	75.9	72.4	70.6	73.0	75.1	83.4
Idaho	70.1	71.8	65.8	76.7	71.0	67.8	71.8	68.4	76.0
Illinois	61.3	62.9	64.6	64.8	63.9	64.8	65.3	64.7	65.0
Indiana	62.8	62.6	62.7	62.3	58.2	55.3	58.5	57.3	56.6
Iowa	69.6	74.5	73.6	73.6	72.3	73.7	73.3	74.0	74.6
Kansas	68.9	70.9	71.5	69.1	68.8	69.9	70.1	70.8	68.1
Kentucky	51.0	49.1	54.0	58.2	60.2	60.2	61.1	62.6	62.9
Louisiana	60.6	62.5	66.2	66.0	64.4	66.5	64.8	67.6	67.6
Maine	75.6	77.4	70.9	71.0	75.5	77.3	74.3	72.0	68.0
Maryland	70.8	69.0	70.5	67.7	66.3	65.1	65.2	66.7	66.9
Massachusetts	79.5	79.6	81.1	81.0	79.2	74.8	75.5	70.4	69.0
Michigan	66.0	68.5	70.1	69.3	71.0	70.8	72.3	71.6	69.7
Minnesota	65.4	64.4	65.2	63.4	60.8	65.1	63.4	60.8	58.8
Mississippi	60.4	62.4	63.5	63.6	62.1	63.2	63.5	63.3	65.9
Missouri	66.9	67.0	67.7	67.1	67.5	66.0	67.1	68.3	67.9
Montana	87.3	72.9	70.4	72.7	66.7	67.6	79.7	72.0	55.4
Nebraska	63.7	65.8	67.2	68.4	63.2	64.4	61.6	63.9	68.4
Nevada	61.3	52.7	55.3	61.0	56.7	57.9	62.4	56.1	57.2
New Hampshire	69.4	74.7	74.2	76.8	68.3	76.8	81.0	84.1	72.7
New Jersey	57.3	61.0	62.2	63.1	64.7	65.1	67.9	68.2	66.9
New Mexico	—	—	49.1	53.3	51.4	51.8	52.6	49.2	51.5
New York	46.0	48.1	49.9	49.6	48.4	48.7	50.6	52.0	51.1
North Carolina	58.5	60.6	62.0	62.3	63.8	64.0	64.8	64.7	63.5
North Dakota	82.9	70.4	67.0	75.4	65.9	79.5	74.2	79.7	80.0
Ohio	65.5	67.2	68.3	67.0	67.2	65.4	66.8	67.8	68.9
Oklahoma	53.5	52.6	51.5	51.6	49.2	48.4	51.4	55.7	56.8
Oregon	62.4	65.4	66.2	67.2	64.2	68.4	65.2	60.0	62.1
Pennsylvania	62.4	59.7	59.7	61.0	60.0	59.7	59.0	55.5	52.7
Rhode Island	76.9	79.9	77.5	76.1	76.2	68.1	71.9	71.7	69.6
South Carolina	57.5	56.8	57.2	54.6	53.6	51.9	53.5	53.5	53.0
South Dakota	69.0	65.2	65.4	51.5	59.3	60.2	63.0	69.9	62.2
Tennessee	59.3	62.7	63.7	62.4	61.0	62.1	62.7	63.5	64.0
Texas	58.2	60.3	58.4	58.1	57.3	57.4	58.2	57.1	56.4
Utah	66.7	67.0	75.0	70.0	69.1	69.7	67.7	61.5	64.4
Vermont	—	—	—	—	—	—	—	—	—
Virginia	72.4	73.6	73.0	72.5	70.9	69.2	68.0	67.7	68.1
Washington	63.3	68.7	67.4	68.0	64.7	65.4	65.7	65.9	65.5
West Virginia	52.2	52.6	54.6	52.0	54.5	54.3	53.9	55.9	54.2
Wisconsin	65.6	65.6	67.7	67.8	67.6	67.5	68.5	64.9	63.3
Wyoming	65.5	65.7	66.1	68.6	74.8	71.7	79.8	73.0	65.9
United States	60.2	61.6	62.7	62.4	61.5	61.5	62.2	61.8	61.6

TABLE 4.15D

Percentage of Infants Born to Women Receiving Early Prenatal Care, Nonwhite, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	54.9	54.8	56.8	56.7	56.7	58.2	59.0	58.4	59.3
Alaska	60.0	65.6	67.1	65.3	67.8	65.9	67.4	67.8	69.5
Arizona	50.3	55.2	58.2	61.8	64.5	61.2	58.9	59.4	60.4
Arkansas	51.8	54.2	55.1	55.4	52.3	50.5	53.8	52.5	53.3
California	71.4	74.2	75.3	76.0	75.5	75.0	74.6	73.0	73.5
Colorado	66.0	67.7	69.2	68.5	65.7	67.7	68.9	68.7	68.9
Connecticut	71.5	72.4	71.9	70.2	68.1	66.7	68.2	67.7	68.7
Delaware	59.9	59.8	66.0	67.0	63.6	60.6	65.4	62.7	63.8
District of Columbia	55.5	60.4	65.6	62.8	58.0	55.0	56.8	55.0	55.4
Florida	54.1	53.4	53.0	53.1	51.7	51.6	51.1	50.1	51.6
Georgia	58.5	60.9	62.4	61.8	58.7	63.4	63.6	63.2	61.5
Hawaii	71.4	74.5	75.8	75.9	73.7	73.8	74.9	74.4	75.8
Idaho	61.5	68.0	64.7	65.0	66.9	66.0	67.3	65.4	68.6
Illinois	62.2	63.6	65.1	65.5	64.8	65.7	66.2	65.5	65.9
Indiana	63.8	63.6	63.6	63.4	59.9	57.1	60.2	58.8	58.2
Iowa	70.0	73.5	71.5	71.2	70.1	73.5	70.3	73.6	74.8
Kansas	68.8	70.0	71.2	68.4	67.1	68.5	68.9	69.6	67.6
Kentucky	51.9	50.1	54.8	58.9	60.5	60.7	61.5	62.8	63.5
Louisiana	60.5	62.4	66.3	66.0	64.5	66.5	65.1	68.0	68.1
Maine	74.1	74.8	69.0	72.7	75.3	80.9	76.9	76.4	74.6
Maryland	71.5	69.8	71.2	68.6	67.4	66.5	66.7	67.8	68.2
Massachusetts	80.7	80.9	81.8	81.4	79.7	76.1	76.6	73.1	70.9
Michigan	66.6	69.0	70.5	70.0	71.3	73.9	72.7	72.0	70.2
Minnesota	60.1	60.1	56.9	54.3	54.8	57.7	58.0	56.7	55.8
Mississippi	60.4	62.5	63.5	63.6	62.2	63.3	63.5	63.4	66.0
Missouri	67.2	67.3	68.2	67.5	68.0	66.6	67.7	68.9	68.4
Montana	63.2	60.1	62.8	61.8	62.0	60.6	59.5	60.4	58.8
Nebraska	61.5	63.1	65.2	65.9	63.6	64.5	60.1	64.4	66.9
Nevada	62.8	57.7	60.1	64.3	61.6	61.9	65.9	61.9	63.7
New Hampshire	74.7	79.8	79.7	78.4	75.4	78.8	79.5	86.0	75.7
New Jersey	59.2	62.8	64.2	64.9	66.5	67.0	70.0	70.2	69.0
New Mexico	—	—	45.4	47.2	48.5	48.4	50.8	47.8	50.3
New York	48.2	50.3	52.4	52.3	50.9	51.4	53.4	54.4	53.6
North Carolina	59.3	61.3	62.6	63.1	64.5	64.6	65.3	65.3	64.1
North Dakota	57.4	61.0	58.1	64.3	60.7	68.1	66.7	67.2	66.1
Ohio	66.2	67.9	69.0	68.0	67.9	66.4	67.8	68.6	69.8
Oklahoma	53.3	53.9	52.8	51.6	51.7	50.9	53.3	57.0	57.3
Oregon	65.1	66.7	66.2	63.1	64.7	68.3	67.8	66.0	65.5
Pennsylvania	63.3	60.8	60.6	61.9	61.2	60.9	60.2	57.0	54.2
Rhode Island	78.0	79.5	76.1	74.9	73.7	64.9	68.8	69.1	68.8
South Carolina	57.8	57.1	57.5	54.9	53.8	52.2	53.7	53.9	53.3
South Dakota	44.4	42.2	44.4	46.3	44.9	46.3	50.4	52.4	53.3
Tennessee	59.5	62.8	63.8	62.6	61.3	62.3	63.0	63.8	64.3
Texas	59.4	61.4	59.5	59.3	59.0	59.1	60.0	59.0	58.4
Utah	64.0	63.0	63.4	64.7	64.5	66.3	64.1	62.2	65.2
Vermont	74.6	77.4	72.7	69.5	76.0	75.4	64.5	71.4	62.8
Virginia	73.0	74.1	73.4	72.9	71.3	70.0	69.0	68.5	68.9
Washington	66.7	69.0	68.4	67.7	66.1	66.1	68.0	67.2	67.6
West Virginia	52.2	53.8	55.4	53.5	55.7	56.1	56.0	57.9	55.6
Wisconsin	66.6	66.1	67.1	66.8	66.6	65.9	66.2	63.2	61.9
Wyoming	70.2	62.2	62.7	70.5	68.5	67.1	73.2	66.7	68.7
United States	61.4	62.9	63.8	63.8	63.2	63.4	64.1	63.7	63.7

TABLE 4.16A

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, All Races, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	6.1	6.3	6.5	6.3	6.4	6.1	5.9	6.2	6.5
Alaska	5.3	5.1	4.7	4.8	4.6	4.6	4.8	4.4	4.3
Arizona	8.9	8.1	7.7	6.9	6.6	7.7	8.2	7.7	8.2
Arkansas	6.8	6.3	6.3	6.6	7.1	7.4	7.9	7.4	6.9
California	5.5	4.9	4.6	4.4	4.6	4.8	5.1	5.4	5.7
Colorado	4.9	4.7	4.4	4.9	5.5	5.8	5.4	5.4	5.2
Connecticut	2.4	2.3	2.4	2.9	2.7	2.7	2.6	3.0	3.3
Delaware	5.0	4.5	4.4	3.8	3.9	4.6	3.7	4.3	3.9
District of Columbia	14.6	8.0	7.1	7.4	7.8	11.1	10.0	11.4	11.4
Florida	6.2	7.0	7.3	7.6	8.7	8.5	8.9	9.0	8.6
Georgia	6.7	6.0	5.2	5.7	5.8	5.4	5.1	5.3	6.4
Hawaii	5.3	4.9	4.8	4.5	5.0	5.5	4.7	5.1	5.1
Idaho	5.4	5.0	5.2	5.0	4.9	5.4	4.8	5.4	5.3
Illinois	5.2	5.2	5.0	4.4	4.3	4.2	4.4	4.5	4.6
Indiana	4.1	3.9	3.8	4.0	4.5	4.6	4.4	5.1	5.3
Iowa	2.3	2.3	2.2	2.2	2.4	2.2	2.2	2.1	2.2
Kansas	3.4	3.4	3.4	3.3	3.6	3.4	3.7	3.9	3.9
Kentucky	7.9	7.5	6.9	4.9	5.3	5.4	5.3	5.1	4.9
Louisiana	5.4	5.0	4.9	4.9	4.5	4.3	4.8	4.9	4.7
Maine	2.5	2.3	2.4	3.2	2.8	1.8	2.4	3.5	2.2
Maryland	2.9	3.6	3.3	3.9	3.9	4.3	4.0	4.1	4.0
Massachusetts	1.7	1.6	1.6	1.6	1.9	2.4	2.3	2.6	2.8
Michigan	3.7	3.3	3.1	3.0	3.2	3.1	3.0	2.9	3.4
Minnesota	3.5	3.3	3.4	3.7	3.9	3.6	3.6	3.9	3.8
Mississippi	5.2	4.5	4.4	4.6	4.5	4.6	4.4	4.3	4.1
Missouri	4.0	4.0	3.8	4.2	4.4	4.4	4.0	4.0	4.3
Montana	3.4	3.6	3.7	3.7	3.9	3.8	4.2	4.1	4.7
Nebraska	3.7	3.4	3.4	3.2	3.3	3.2	3.5	3.4	3.2
Nevada	5.8	7.2	6.0	4.7	6.9	6.1	6.0	6.0	6.5
New Hampshire	2.7	2.3	2.3	2.1	2.6	2.2	2.3	2.4	2.6
New Jersey	5.2	5.1	5.1	4.9	4.6	4.4	4.0	4.2	5.0
New Mexico	—	—	12.5	12.7	12.1	12.8	13.2	13.4	13.3
New York	9.8	8.9	8.7	8.8	9.5	9.7	9.2	8.9	10.2
North Carolina	4.5	4.2	4.2	4.1	3.9	4.0	3.9	4.2	4.6
North Dakota	3.7	3.3	3.1	3.1	3.0	2.7	2.7	2.5	2.7
Ohio	3.4	3.3	3.2	3.4	3.3	3.6	3.6	3.4	3.3
Oklahoma	8.1	8.6	8.6	8.2	9.5	9.2	8.5	7.3	7.3
Oregon	4.8	4.6	4.2	4.8	5.2	5.0	5.2	5.6	6.4
Pennsylvania	3.8	3.9	3.9	4.3	4.1	4.3	4.4	4.9	5.3
Rhode Island	1.6	1.7	1.9	1.6	1.9	2.4	2.2	2.3	2.6
South Carolina	5.8	6.0	6.2	6.7	7.5	8.0	7.7	8.0	8.1
South Dakota	6.2	6.5	6.9	6.3	6.8	7.4	6.6	5.6	5.7
Tennessee	5.9	5.3	5.4	5.4	5.9	5.7	5.3	5.5	5.5
Texas	8.6	8.1	9.1	9.5	9.9	10.4	10.6	11.0	11.5
Utah	2.4	2.6	2.8	2.8	3.0	2.9	3.1	3.1	3.1
Vermont	3.0	3.4	2.7	2.6	2.6	2.6	2.7	3.5	4.2
Virginia	3.6	3.4	3.6	3.5	3.6	3.7	3.8	4.0	4.0
Washington	3.7	3.6	3.7	4.0	4.5	4.6	5.0	4.7	4.9
West Virginia	6.9	6.3	6.3	6.1	6.1	6.0	6.3	6.1	6.9
Wisconsin	2.7	2.7	2.6	2.4	2.7	2.5	2.6	3.0	3.2
Wyoming	4.0	4.7	4.3	3.6	3.6	3.8	4.1	4.3	3.9
United States	5.4	5.1	5.1	5.2	5.5	5.6	5.6	5.7	6.0

TABLE 4.16B

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, White, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	4.2	4.2	4.5	4.2	4.3	4.0	3.9	4.3	4.8
Alaska	3.5	3.6	3.3	3.3	3.1	3.5	3.6	3.8	3.3
Arizona	7.5	6.8	6.5	5.8	5.6	6.5	7.2	6.9	7.5
Arkansas	5.3	4.9	5.0	5.3	5.6	5.9	6.4	5.6	5.4
California	5.6	5.0	4.6	4.4	4.6	4.7	5.0	5.2	5.6
Colorado	4.7	4.5	4.1	4.6	5.1	5.5	5.1	5.1	4.9
Connecticut	2.0	1.9	1.5	2.4	2.1	1.9	2.0	2.2	2.5
Delaware	3.9	3.9	3.7	3.0	3.0	3.1	2.8	3.1	2.7
District of Columbia	10.9	7.0	4.6	5.7	5.2	5.8	5.0	5.4	4.9
Florida	5.1	5.7	6.1	6.2	7.0	6.8	7.2	7.1	6.9
Georgia	5.1	4.3	3.9	4.0	3.9	3.9	3.8	3.9	4.8
Hawaii	5.1	3.9	3.8	3.2	3.9	4.2	3.6	3.7	3.1
Idaho	4.7	4.9	5.0	4.9	4.7	5.3	4.7	5.2	5.2
Illinois	4.2	4.2	4.2	3.7	3.5	3.3	3.5	3.6	3.5
Indiana	3.8	3.6	3.4	3.6	2.5	4.0	3.9	4.3	4.5
Iowa	2.2	2.2	2.0	2.0	2.2	2.1	2.0	2.0	2.1
Kansas	3.2	3.2	3.0	3.0	3.2	3.0	3.1	3.6	3.3
Kentucky	7.0	6.1	5.9	4.9	4.8	5.0	4.9	4.6	4.5
Louisiana	3.3	3.1	3.0	2.9	2.9	2.6	2.8	3.0	2.8
Maine	2.5	2.2	2.4	3.1	2.7	1.8	2.4	3.4	2.2
Maryland	2.3	2.6	2.3	2.7	2.7	2.9	2.5	2.6	2.3
Massachusetts	1.6	1.5	1.5	1.4	1.7	2.2	2.1	2.3	2.4
Michigan	3.1	2.7	2.6	2.4	2.5	2.5	2.4	2.4	2.7
Minnesota	3.2	2.9	2.9	3.2	3.3	3.0	2.9	3.1	2.9
Mississippi	3.0	2.6	2.6	2.7	2.4	2.5	2.4	2.4	2.5
Missouri	3.8	3.5	3.4	3.6	3.9	3.8	3.4	3.4	3.6
Montana	2.5	2.7	2.8	2.8	2.8	2.8	3.1	3.2	3.5
Nebraska	3.3	3.0	3.0	2.9	2.9	2.8	3.0	3.0	2.8
Nevada	5.1	6.3	5.1	4.1	6.0	5.3	5.4	5.2	5.6
New Hampshire	2.7	2.3	2.3	2.1	2.6	2.2	2.3	2.4	2.6
New Jersey	3.5	3.5	3.3	3.3	3.4	3.2	3.1	3.2	3.8
New Mexico	—	—	10.5	10.8	10.8	11.5	12.1	12.5	12.4
New York	6.8	6.2	5.8	6.2	6.5	6.9	6.6	6.3	7.1
North Carolina	2.9	2.7	2.7	2.7	2.6	2.5	2.5	2.7	2.8
North Dakota	2.8	2.6	2.2	2.6	2.3	2.1	2.1	1.9	2.0
Ohio	3.0	2.9	2.8	2.8	2.7	2.7	2.8	2.8	2.7
Oklahoma	6.5	7.0	7.0	6.6	7.8	7.5	6.9	6.0	5.9
Oregon	4.7	4.4	3.9	4.4	4.8	4.7	4.9	5.4	6.1
Pennsylvania	3.2	3.2	3.2	3.2	2.5	3.4	3.5	3.5	3.6
Rhode Island	1.4	1.6	1.6	1.3	1.5	1.9	1.8	1.9	2.2
South Carolina	3.8	3.9	4.1	4.5	5.0	5.1	4.6	4.8	5.1
South Dakota	4.0	3.5	4.2	3.6	4.2	4.2	4.0	3.3	3.3
Tennessee	5.1	4.6	4.6	4.5	5.0	4.7	4.2	4.4	4.5
Texas	8.2	7.8	8.7	9.1	9.6	10.0	10.3	10.6	11.1
Utah	2.1	2.3	2.4	2.4	2.6	2.5	2.7	2.7	2.8
Vermont	3.1	3.4	2.7	2.6	2.5	2.6	2.6	3.5	4.2
Virginia	3.0	3.0	3.2	2.9	3.0	2.9	2.9	3.0	3.1
Washington	3.4	3.2	3.4	3.5	4.0	4.1	4.5	4.2	4.4
West Virginia	6.7	6.0	6.1	5.9	5.9	5.8	6.1	5.9	6.5
Wisconsin	2.4	2.3	2.1	2.0	2.2	2.0	2.2	2.3	2.4
Wyoming	3.7	4.5	4.1	3.3	3.4	3.5	4.0	4.0	3.7
United States	4.5	4.3	4.3	4.3	4.5	4.6	4.7	4.7	5.0

TABLE 4.16C

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, Black, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	9.7	9.9	10.2	10.0	10.3	10.0	9.5	9.8	9.9
Alaska	—	—	—	—	—	—	—	—	6.5
Arizona	8.8	8.7	7.4	8.4	7.2	8.5	9.4	10.4	10.2
Arkansas	11.3	10.3	10.1	10.4	11.6	11.8	12.7	13.2	12.0
California	5.0	4.3	4.2	3.9	4.6	4.9	5.4	6.7	6.9
Colorado	7.6	6.5	6.0	6.7	8.4	7.3	8.0	7.5	8.1
Connecticut	5.6	5.5	6.2	6.7	7.2	8.3	6.8	8.8	8.4
Delaware	8.3	6.2	6.5	6.2	6.8	9.2	6.7	8.3	7.6
District of Columbia	15.5	8.3	7.6	8.4	8.5	12.5	11.4	12.5	12.6
Florida	9.1	10.7	10.9	11.7	13.7	13.4	14.3	14.8	14.1
Georgia	9.4	8.8	7.5	8.8	9.3	8.2	7.5	8.0	9.2
Hawaii	—	5.8	—	5.5	4.4	5.4	3.8	3.5	—
Idaho	—	—	—	—	—	—	—	—	—
Illinois	8.8	8.4	7.4	6.9	7.0	7.2	7.5	7.6	8.2
Indiana	6.6	7.7	7.4	7.8	9.2	10.7	9.8	13.1	12.5
Iowa	5.2	5.6	4.6	5.1	6.3	4.8	4.5	3.9	4.5
Kansas	4.9	5.1	5.6	5.4	5.8	5.2	6.4	6.1	7.3
Kentucky	15.9	20.0	16.2	10.7	9.7	9.4	10.0	9.5	8.4
Louisiana	8.5	7.6	7.9	8.0	7.1	6.7	7.8	7.9	7.5
Maine	—	—	—	—	—	—	—	—	—
Maryland	4.6	5.8	5.5	6.6	6.5	7.7	7.3	7.5	7.6
Massachusetts	2.9	3.1	2.6	3.4	3.8	4.8	4.4	6.3	6.4
Michigan	6.6	6.3	5.9	6.4	6.6	6.2	5.5	5.4	6.4
Minnesota	7.4	7.7	7.5	9.4	9.2	9.8	10.6	11.7	12.4
Mississippi	7.3	6.3	6.3	6.5	6.8	6.8	6.4	6.4	5.8
Missouri	6.2	6.5	6.1	7.1	7.3	7.9	7.3	7.3	8.0
Montana	—	—	—	—	—	—	—	—	—
Nebraska	6.4	7.4	6.8	6.7	8.2	8.6	8.9	7.1	5.9
Nevada	9.0	13.7	11.7	7.2	12.6	10.6	8.8	11.2	13.0
New Hampshire	—	—	—	—	—	—	—	—	—
New Jersey	11.7	11.6	12.0	11.0	9.5	9.0	8.0	7.9	9.9
New Mexico	—	—	18.9	14.4	15.0	15.2	14.5	16.5	15.4
New York	20.9	19.4	18.9	18.6	20.2	20.1	19.2	18.1	21.2
North Carolina	8.3	7.6	7.6	7.4	6.7	7.4	7.2	7.8	8.6
North Dakota	—	—	—	—	—	—	—	—	—
Ohio	6.1	5.6	5.6	6.9	7.2	8.5	8.5	7.4	6.6
Oklahoma	12.9	14.5	14.0	13.5	17.0	17.1	15.4	12.7	13.1
Oregon	6.3	7.2	7.0	6.7	8.9	9.1	8.5	9.2	11.3
Pennsylvania	7.8	8.4	9.0	11.6	9.8	9.8	11.1	13.5	15.4
Rhode Island	—	—	—	4.7	4.9	6.6	5.6	5.2	5.9
South Carolina	8.7	9.1	9.3	10.1	11.4	12.5	12.5	13.1	12.8
South Dakota	—	—	—	—	—	—	—	—	—
Tennessee	8.5	7.6	7.8	8.1	8.9	8.9	8.9	8.9	8.6
Texas	10.8	10.0	11.0	11.7	12.4	12.5	12.7	13.9	14.0
Utah	—	—	—	—	—	—	—	—	—
Vermont	—	—	—	—	—	—	—	—	—
Virginia	5.4	4.7	5.0	5.2	5.6	6.2	6.2	6.9	6.7
Washington	7.0	5.5	6.6	6.4	7.2	8.4	9.5	9.3	11.0
West Virginia	12.2	12.7	12.0	13.1	12.3	12.1	12.2	12.6	15.3
Wisconsin	6.4	6.9	6.4	7.0	7.0	6.6	6.5	8.5	9.8
Wyoming	—	—	—	—	—	—	—	—	—
United States	9.3	8.9	8.8	9.1	9.6	9.7	9.6	10.0	10.6

TABLE 4.16D

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, Nonwhite, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	9.6	9.9	10.1	10.0	10.3	10.0	9.5	9.7	9.8
Alaska	9.6	8.8	8.2	8.4	8.3	7.2	8.0	6.0	6.6
Arizona	16.8	15.7	14.7	13.0	11.7	13.9	13.2	12.4	12.1
Arkansas	8.4	11.6	10.1	10.4	11.6	11.9	12.5	13.2	11.8
California	5.2	4.6	4.8	4.4	4.8	4.9	5.5	6.1	6.1
Colorado	8.3	7.4	7.6	8.8	9.7	9.1	9.1	8.3	7.8
Connecticut	5.3	5.3	6.0	6.4	6.8	7.9	6.4	8.2	7.9
Delaware	8.2	6.1	6.4	6.0	6.8	8.9	6.6	8.0	7.4
District of Columbia	15.4	8.2	7.5	8.4	8.4	12.4	11.2	12.8	12.7
Florida	9.1	10.5	10.8	11.5	13.5	13.2	14.0	14.6	13.8
Georgia	9.4	8.8	7.5	8.7	9.0	8.2	7.5	7.9	9.1
Hawaii	5.3	5.2	5.1	4.9	5.4	5.9	5.1	5.6	5.7
Idaho	9.7	9.3	10.1	9.0	12.0	9.6	9.6	10.3	8.0
Illinois	8.6	8.3	7.4	6.8	6.9	7.0	7.3	7.4	7.9
Indiana	6.5	7.5	7.2	7.6	8.8	10.2	9.4	12.5	11.9
Iowa	5.5	6.2	5.8	6.6	8.0	6.1	7.0	4.6	4.9
Kansas	5.4	5.6	6.0	5.8	7.0	6.6	8.0	6.7	7.6
Kentucky	15.5	19.3	15.6	10.8	9.6	9.2	9.7	9.6	8.2
Louisiana	8.7	7.8	7.9	8.1	7.2	6.9	7.8	7.8	7.4
Maine	—	—	—	—	—	—	—	—	—
Maryland	4.5	5.8	5.4	6.4	6.3	7.4	7.0	7.3	7.3
Massachusetts	2.8	2.9	2.8	3.5	3.7	4.6	4.4	5.7	6.0
Michigan	6.6	6.2	5.8	6.2	6.5	6.3	5.5	5.4	6.2
Minnesota	10.3	11.2	12.8	12.1	12.7	12.5	13.1	14.2	14.0
Mississippi	7.4	6.4	6.3	6.5	6.8	6.8	6.5	6.4	5.8
Missouri	6.2	6.5	6.0	7.0	7.3	7.7	7.1	7.1	7.9
Montana	11.5	11.5	12.0	10.6	12.1	11.6	12.3	11.1	13.1
Nebraska	8.6	9.8	8.3	8.0	8.7	8.3	9.5	7.8	7.2
Nevada	9.2	12.2	10.7	8.1	11.5	10.1	9.3	9.4	10.8
New Hampshire	—	—	—	—	—	—	—	—	—
New Jersey	11.1	10.8	11.2	10.3	8.9	8.5	7.4	7.4	9.1
New Mexico	—	—	20.9	20.8	18.6	18.5	17.9	17.7	17.9
New York	19.6	18.1	17.5	17.2	18.9	18.7	17.8	16.8	19.5
North Carolina	8.0	7.4	7.4	7.2	6.5	7.2	7.0	7.5	8.4
North Dakota	13.6	12.1	13.4	9.6	10.5	9.2	9.5	8.2	8.6
Ohio	6.0	5.6	5.5	6.7	7.0	8.3	8.2	7.1	6.4
Oklahoma	14.4	14.7	14.7	14.6	16.0	15.6	14.6	12.6	12.3
Oregon	7.2	7.6	8.7	9.9	10.0	9.1	8.9	8.0	9.2
Pennsylvania	7.5	8.1	8.9	11.4	9.5	9.6	10.7	12.9	14.8
Rhode Island	—	3.3	5.2	4.5	5.8	7.5	6.4	5.8	6.6
South Carolina	8.6	9.1	9.3	10.1	11.3	12.4	12.4	12.9	12.6
South Dakota	21.3	25.8	23.7	22.7	22.1	24.7	21.5	17.1	17.2
Tennessee	8.6	7.7	8.0	8.2	9.0	9.0	8.8	8.9	8.5
Texas	10.6	9.7	10.8	11.5	12.1	12.1	12.2	13.4	13.4
Utah	11.2	10.8	11.4	11.1	11.9	10.2	9.8	9.3	9.7
Vermont	—	—	—	—	—	—	—	—	—
Virginia	5.2	4.7	5.0	5.1	5.5	6.1	6.1	6.7	6.5
Washington	7.2	6.5	6.8	7.5	8.1	8.4	8.8	8.3	8.9
West Virginia	12.0	12.0	11.6	12.1	11.5	11.6	11.2	11.7	14.4
Wisconsin	6.6	7.3	7.0	7.4	7.6	7.4	6.9	8.8	9.4
Wyoming	8.9	6.6	8.9	8.1	6.5	8.8	7.9	10.1	—
United States	9.1	8.7	8.8	8.9	9.3	9.4	9.3	9.5	9.9

TABLE 4.17A

Infant Mortality Rate, All Races, 1986

Rank	State	Rate
1	North Dakota	8.4
2	Massachusetts	8.5
3	Iowa	8.5
4	Utah	8.6
5	Colorado	8.6
6	Maine	8.8
7	Kansas	8.9
8	California	8.9
9	Connecticut	9.1
10	New Hampshire	9.1
11	Nevada	9.1
12	Minnesota	9.2
13	Wisconsin	9.2
14	Hawaii	9.3
15	Rhode Island	9.4
16	Arizona	9.4
17	Oregon	9.4
18	Texas	9.5
19	New Mexico	9.5
20	Montana	9.6
21	New Jersey	9.8
22	Washington	9.8
23	Kentucky	9.8
24	Vermont	10.0
25	Nebraska	10.1
26	Pennsylvania	10.2
27	West Virginia	10.2
28	Arkansas	10.3
29	Oklahoma	10.4
30	Ohio	10.6
31	New York	10.7
32	Missouri	10.7
33	Alaska	10.8
34	Wyoming	10.9
35	Florida	11.0
36	Tennessee	11.0
37	Virginia	11.1
38	Indiana	11.3
39	Idaho	11.3
40	Michigan	11.4
41	Delaware	11.5
42	North Carolina	11.5
43	Maryland	11.7
44	Louisiana	11.9
45	Illinois	12.1
46	Mississippi	12.4
47	Georgia	12.5
48	South Carolina	13.2
49	Alabama	13.3
50	South Dakota	13.3
51	District of Columbia	21.1
	United States	10.4

TABLE 4.17B

Infant Mortality Rate, White, 1986

Rank	State	Rate
1	Massachusetts	7.7
2	New Jersey	7.8
3	Connecticut	7.8
4	North Dakota	8.3
5	Colorado	8.3
6	Iowa	8.3
7	Kansas	8.4
8	Wisconsin	8.5
9	Nevada	8.6
10	California	8.6
11	Texas	8.6
12	Pennsylvania	8.6
13	Utah	8.6
14	Hawaii	8.6
15	Louisiana	8.7
16	Tennessee	8.7
17	Montana	8.7
18	Florida	8.8
19	Rhode Island	8.8
20	Minnesota	8.9
21	Arkansas	8.9
22	Mississippi	9.0
23	Virginia	9.0
24	Maine	9.0
25	New Mexico	9.0
26	Michigan	9.0
27	Arizona	9.0
28	New Hampshire	9.1
29	New York	9.2
30	North Carolina	9.2
31	Nebraska	9.2
32	Missouri	9.3
33	Oregon	9.3
34	Illinois	9.3
35	Georgia	9.4
36	Ohio	9.5
37	Maryland	9.5
38	Kentucky	9.6
39	West Virginia	9.6
40	Delaware	9.6
41	Vermont	9.7
42	Washington	9.8
43	Alabama	9.8
44	Oklahoma	10.1
45	Indiana	10.1
46	Alaska	10.1
47	South Carolina	10.1
48	South Dakota	10.4
49	Wyoming	10.8
50	Idaho	11.3
	United States	8.9

TABLE 4.17C

Infant Mortality Rate, Black, 1986

Rank	State	Rate
1	Kentucky	12.7
2	Washington	13.5
3	Arizona	14.7
4	Kansas	15.0
5	Arkansas	15.3
6	Texas	15.9
7	California	16.2
8	Mississippi	16.2
9	Minnesota	16.4
10	New York	16.7
11	Louisiana	17.0
12	Colorado	17.2
13	Oklahoma	17.3
14	Maryland	17.3
15	Wisconsin	17.3
16	Ohio	17.4
17	North Carolina	17.4
18	Delaware	17.6
19	Virginia	18.0
20	South Carolina	18.1
21	Florida	18.2
22	Georgia	18.4
23	Connecticut	18.4
24	Massachusetts	18.5
25	New Jersey	18.5
26	Missouri	18.5
27	Tennessee	18.6
28	Pennsylvania	19.8
29	Alabama	20.0
30	Indiana	21.5
31	Illinois	22.3
32	Michigan	22.8
33	District of Columbia	24.0
	United States	18.0

TABLE 4.17D

Infant Mortality Rate, Nonwhite, 1986

Rank	State	Rate
1	Hawaii	9.6
2	Washington	9.7
3	California	10.4
4	Oregon	10.4
5	Arizona	11.2
6	Oklahoma	11.4
7	Nevada	11.7
8	Colorado	11.9
9	New Mexico	12.0
10	Kentucky	12.2
11	Alaska	12.2
12	Kansas	12.4
13	Minnesota	13.1
14	Texas	14.3
15	Massachusetts	14.6
16	Arkansas	14.7
17	New York	15.0
18	Wisconsin	15.3
19	Maryland	16.1
20	Mississippi	16.2
21	Connecticut	16.3
22	New Jersey	16.4
23	Louisiana	16.5
24	North Carolina	16.6
25	Virginia	16.7
26	Ohio	16.7
27	Delaware	17.0
28	Florida	17.4
29	Missouri	17.6
30	South Carolina	17.9
31	Georgia	17.9
32	Tennessee	18.3
33	Pennsylvania	18.4
34	Alabama	19.8
35	Nebraska	20.2
36	Indiana	20.3
37	Illinois	21.1
38	Michigan	21.2
39	District of Columbia	22.6
40	South Dakota	27.5
	United States	15.7

TABLE 4.18A

Neonatal Mortality Rate, All Races, 1986

Rank	State	Rate
1	North Dakota	4.1
2	Oregon	4.7
3	Nevada	4.9
4	Utah	5.1
5	Kansas	5.1
6	Colorado	5.3
7	Washington	5.4
8	New Mexico	5.4
9	Arizona	5.5
10	Minnesota	5.5
11	Iowa	5.6
12	Montana	5.6
13	California	5.6
14	Maine	5.6
15	Wisconsin	5.7
16	Arkansas	5.7
17	Wyoming	5.8
18	Massachusetts	5.8
19	New Hampshire	5.9
20	Texas	6.0
21	Oklahoma	6.2
22	Alaska	6.2
23	Hawaii	6.3
24	Kentucky	6.4
25	Rhode Island	6.5
26	New Jersey	6.6
27	West Virginia	6.6
28	Nebraska	6.6
29	Idaho	6.7
30	Connecticut	6.8
31	Pennsylvania	6.8
32	Missouri	6.8
33	Ohio	6.9
34	Tennessee	6.9
35	South Dakota	7.1
36	Florida	7.3
37	New York	7.3
38	Virginia	7.5
39	Vermont	7.5
40	Indiana	7.5
41	North Carolina	7.7
42	Mississippi	7.7
43	Louisiana	7.8
44	Michigan	7.8
45	Illinois	8.1
46	Maryland	8.3
47	Georgia	8.5
48	South Carolina	8.8
49	Delaware	8.8
50	Alabama	9.1
51	District of Columbia	16.1
	United States	6.7

TABLE 4.18B

Neonatal Mortality Rate, White, 1986

Rank	State	Rate
1	North Dakota	4.1
2	Oregon	4.6
3	Kansas	4.8
4	Nevada	4.9
5	Utah	5.1
6	Colorado	5.1
7	Wisconsin	5.2
8	Arkansas	5.3
9	Washington	5.3
10	Massachusetts	5.3
11	Montana	5.3
12	Arizona	5.4
13	Texas	5.4
14	California	5.4
15	New Jersey	5.4
16	Iowa	5.5
17	New Mexico	5.5
18	Minnesota	5.5
19	Tennessee	5.6
20	Pennsylvania	5.7
21	Maine	5.8
22	New Hampshire	5.8
23	Connecticut	5.9
24	Louisiana	5.9
25	Florida	5.9
26	Alaska	6.0
27	Missouri	6.0
28	Virginia	6.0
29	Oklahoma	6.0
30	Michigan	6.0
31	Mississippi	6.1
32	Rhode Island	6.1
33	Wyoming	6.1
34	Ohio	6.1
35	South Dakota	6.1
36	West Virginia	6.2
37	Nebraska	6.2
38	North Carolina	6.2
39	Kentucky	6.3
40	Illinois	6.4
41	Georgia	6.5
42	Maryland	6.5
43	New York	6.5
44	Idaho	6.6
45	Indiana	6.7
46	Alabama	6.9
47	South Carolina	6.9
48	Vermont	7.3
49	Delaware	7.4
	United States	5.8

TABLE 4.18C

Neonatal Mortality Rate, Black, 1986

Rank	State	Rate
1	Arkansas	7.3
2	Kentucky	7.7
3	Kansas	9.2
4	Mississippi	9.7
5	Texas	9.9
6	California	9.9
7	Oklahoma	10.2
8	Colorado	10.4
9	Louisiana	10.7
10	New York	10.8
11	Ohio	11.2
12	Wisconsin	11.3
13	Tennessee	11.3
14	North Carolina	11.5
15	Missouri	11.5
16	Florida	11.6
17	New Jersey	11.7
18	South Carolina	11.8
19	Georgia	12.4
20	Virginia	12.5
21	Maryland	12.6
22	Delaware	13.3
23	Pennsylvania	13.3
24	Alabama	13.4
25	Massachusetts	13.6
26	Connecticut	13.9
27	Illinois	14.4
28	Indiana	14.9
29	Michigan	16.6
30	District of Columbia	18.4
	United States	11.7

TABLE 4.18D

Neonatal Mortality Rate, Nonwhite, 1986

Rank	State	Rate
1	Arizona	5.8
2	Minnesota	5.8
3	California	6.3
4	Washington	6.4
5	Hawaii	6.6
6	Oklahoma	6.7
7	Arkansas	7.1
8	Kansas	7.3
9	Kentucky	7.3
10	Colorado	7.4
11	Texas	9.0
12	Wisconsin	9.4
13	Mississippi	9.6
14	New York	9.7
15	Louisiana	10.3
16	Massachusetts	10.4
17	New Jersey	10.5
18	Ohio	10.8
19	North Carolina	10.8
20	Missouri	10.9
21	Tennessee	11.1
22	Florida	11.1
23	Virginia	11.5
24	South Carolina	11.7
25	Maryland	11.8
26	Connecticut	12.1
27	Georgia	12.1
28	Pennsylvania	12.5
29	Delaware	13.0
30	Alabama	13.2
31	Illinois	13.7
32	Indiana	14.2
33	Michigan	15.4
34	District of Columbia	17.3
	United States	10.1

TABLE 4.19A

Postneonatal Mortality Rate, All Races, 1986

Rank	State	Rate
1	Connecticut	2.3
2	Massachusetts	2.6
3	Rhode Island	2.9
4	Iowa	2.9
5	Hawaii	3.1
6	Maine	3.2
7	New Jersey	3.2
8	New Hampshire	3.2
9	Colorado	3.3
10	California	3.3
11	New York	3.4
12	Pennsylvania	3.4
13	Maryland	3.5
14	Kentucky	3.5
15	Nebraska	3.5
16	Utah	3.5
17	Michigan	3.5
18	Texas	3.5
19	Wisconsin	3.6
20	Virginia	3.6
21	West Virginia	3.6
22	Minnesota	3.7
23	Florida	3.7
24	Indiana	3.8
25	Ohio	3.8
26	Kansas	3.8
27	North Carolina	3.9
28	Missouri	3.9
29	Arizona	3.9
30	Georgia	4.0
31	Illinois	4.0
32	Montana	4.0
33	Tennessee	4.1
34	New Mexico	4.1
35	Louisiana	4.1
36	Alabama	4.2
37	Oklahoma	4.2
38	Nevada	4.2
39	North Dakota	4.3
40	Washington	4.4
41	South Carolina	4.4
42	Alaska	4.5
43	Idaho	4.6
44	Arkansas	4.6
45	Mississippi	4.6
46	Oregon	4.7
47	District of Columbia	5.0
48	Wyoming	5.1
49	South Dakota	6.2
	United States	3.6

TABLE 4.19B

Postneonatal Mortality Rate, White, 1986

Rank	State	Rate
1	Connecticut	2.0
2	New Jersey	2.4
3	Massachusetts	2.4
4	New York	2.7
5	Louisiana	2.7
6	Rhode Island	2.8
7	Florida	2.8
8	Iowa	2.9
9	Mississippi	2.9
10	Pennsylvania	2.9
11	Alabama	2.9
12	Georgia	2.9
13	Illinois	2.9
14	Michigan	3.0
15	Maryland	3.0
16	North Carolina	3.0
17	Virginia	3.0
18	Nebraska	3.1
19	Tennessee	3.1
20	California	3.1
21	Texas	3.2
22	Colorado	3.2
23	South Carolina	3.2
24	Maine	3.2
25	Wisconsin	3.3
26	New Hampshire	3.3
27	Kentucky	3.3
28	Missouri	3.3
29	Minnesota	3.3
30	Ohio	3.3
31	Montana	3.4
32	Indiana	3.4
33	West Virginia	3.5
34	Utah	3.5
35	New Mexico	3.5
36	Nevada	3.6
37	Arkansas	3.6
38	Arizona	3.6
39	Kansas	3.6
40	Oklahoma	4.1
41	Alaska	4.2
42	North Dakota	4.2
43	South Dakota	4.3
44	Washington	4.5
45	Wyoming	4.6
46	Idaho	4.7
47	Oregon	4.8
	United States	3.1

TABLE 4.19C

Postneonatal Mortality Rate, Black, 1986

Rank	State	Rate
1	Maryland	4.7
2	Massachusetts	4.9
3	Virginia	5.5
4	District of Columbia	5.6
5	Georgia	5.9
6	Texas	5.9
7	New York	6.0
8	North Carolina	6.0
9	Wisconsin	6.0
10	Ohio	6.2
11	Michigan	6.2
12	California	6.3
13	Louisiana	6.3
14	South Carolina	6.3
15	Pennsylvania	6.5
16	Florida	6.5
17	Mississippi	6.6
18	Indiana	6.6
19	Alabama	6.7
20	New Jersey	6.8
21	Missouri	7.0
22	Oklahoma	7.1
23	Tennessee	7.2
24	Illinois	7.8
25	Arkansas	8.0
	United States	6.3

TABLE 4.19D

Postneonatal Mortality Rate, Nonwhite, 1986

Rank	State	Rate
1	Hawaii	3.0
2	California	4.1
3	Massachusetts	4.2
4	Maryland	4.3
5	Oklahoma	4.7
6	Virginia	5.2
7	New York	5.3
8	Texas	5.4
9	District of Columbia	5.4
10	Arizona	5.5
11	Georgia	5.8
12	Michigan	5.8
13	North Carolina	5.8
14	Wisconsin	5.8
15	New Jersey	5.9
16	Ohio	6.0
17	Pennsylvania	6.0
18	Louisiana	6.1
19	Indiana	6.1
20	South Carolina	6.2
21	Florida	6.3
22	Alabama	6.5
23	Mississippi	6.6
24	Missouri	6.6
25	New Mexico	6.9
26	Tennessee	7.2
27	Minnesota	7.3
28	Illinois	7.4
29	Arkansas	7.7
30	South Dakota	15.5
	United States	5.6

TABLE 4.20A

Percentage of Infants Born at Low Birthweight, All Races, 1986

Rank	State	Percent
1	Alaska	4.6
2	North Dakota	4.9
3	Minnesota	5.1
4	Oregon	5.1
5	Maine	5.1
6	Vermont	5.2
7	Idaho	5.2
8	Washington	5.2
9	New Hampshire	5.2
10	Iowa	5.2
11	South Dakota	5.3
12	Wisconsin	5.4
13	Utah	5.4
14	Nebraska	5.5
15	Massachusetts	5.8
16	Montana	5.9
17	California	6.0
18	Arizona	6.2
19	Kansas	6.2
20	Indiana	6.4
21	Rhode Island	6.4
22	Oklahoma	6.5
23	Connecticut	6.6
24	Ohio	6.7
25	Missouri	6.8
26	New Jersey	6.8
27	Wyoming	6.8
28	Texas	6.8
29	Hawaii	6.9
30	Pennsylvania	6.9
31	Michigan	6.9
32	West Virginia	7.0
33	Virginia	7.0
34	New Mexico	7.1
35	Kentucky	7.1
36	New York	7.3
37	Delaware	7.4
38	Nevada	7.4
39	Illinois	7.4
40	Florida	7.6
41	Arkansas	7.6
42	Maryland	7.7
43	Colorado	7.7
44	North Carolina	7.9
45	Tennessee	7.9
46	Alabama	8.0
47	Georgia	8.1
48	South Carolina	8.6
49	Louisiana	8.6
50	Mississippi	8.7
51	District of Columbia	12.2
	United States	6.8

TABLE 4.20B

Percentage of Infants Born at Low Birthweight, White, 1986

Rank	State	Percent
1	Alaska	3.9
2	Wisconsin	4.7
3	Minnesota	4.7
4	North Dakota	4.7
5	Washington	4.8
6	South Dakota	4.9
7	District of Columbia	5.0
8	Iowa	5.0
9	Oregon	5.0
10	Maine	5.1
11	Vermont	5.1
12	Idaho	5.1
13	New Hampshire	5.2
14	Nebraska	5.2
15	California	5.2
16	Massachusetts	5.3
17	Utah	5.3
18	New Jersey	5.4
19	Michigan	5.4
20	Hawaii	5.4
21	Maryland	5.5
22	Illinois	5.5
23	Kansas	5.6
24	Virginia	5.6
25	Connecticut	5.6
26	Pennsylvania	5.6
27	Missouri	5.7
28	Indiana	5.7
29	Ohio	5.7
30	New York	5.8
31	Louisiana	5.8
32	Texas	5.9
33	Oklahoma	5.9
34	Montana	5.9
35	Florida	6.0
36	Georgia	6.0
37	Rhode Island	6.0
38	Delaware	6.0
39	Alabama	6.0
40	Mississippi	6.0
41	Arizona	6.0
42	South Carolina	6.1
43	North Carolina	6.1
44	Arkansas	6.3
45	Tennessee	6.5
46	Kentucky	6.5
47	Nevada	6.6
48	Wyoming	6.8
49	West Virginia	6.8
50	New Mexico	7.2
51	Colorado	7.3
	United States	5.6

TABLE 4.20C

Percentage of Infants Born at Low Birthweight, Black, 1986

Rank	State	Percent
1	Hawaii	8.0
2	Alaska	8.0
3	New Mexico	8.9
4	Utah	9.3
5	Oregon	10.0
6	Washington	10.7
7	Massachusetts	10.8
8	Nebraska	11.2
9	Arizona	11.2
10	Virginia	11.3
11	Oklahoma	11.4
12	Mississippi	11.7
13	West Virginia	11.8
14	Indiana	11.9
15	Alabama	11.9
16	California	11.9
17	Kansas	12.0
18	Arkansas	12.0
19	Rhode Island	12.1
20	Wisconsin	12.1
21	Delaware	12.1
22	Iowa	12.1
23	Georgia	12.1
24	Ohio	12.1
25	North Carolina	12.2
26	Texas	12.3
27	South Carolina	12.4
28	Kentucky	12.5
29	Missouri	12.6
30	New York	12.6
31	Tennessee	12.6
32	Maryland	12.6
33	New Jersey	12.7
34	Florida	12.7
35	Louisiana	12.9
36	Connecticut	12.9
37	Minnesota	13.1
38	Pennsylvania	13.9
39	Michigan	13.9
40	Nevada	14.0
41	Illinois	14.2
42	District of Columbia	14.2
43	Colorado	14.4
	United States	12.5

TABLE 4.20D

Percentage of Infants Born at Low Birthweight, Nonwhite, 1986

Rank	State	Percent
1	Montana	5.4
2	Alaska	6.2
3	New Mexico	6.4
4	Oregon	6.5
5	North Dakota	6.5
6	Utah	6.8
7	Arizona	7.0
8	South Dakota	7.1
9	Idaho	7.3
10	Hawaii	7.3
11	Wyoming	7.8
12	Washington	7.9
13	Oklahoma	8.5
14	California	8.8
15	Minnesota	9.2
16	Massachusetts	9.5
17	Nebraska	9.5
18	Rhode Island	10.2
19	Iowa	10.2
20	Wisconsin	10.4
21	Kansas	10.7
22	Virginia	10.9
23	Nevada	11.3
24	West Virginia	11.3
25	Indiana	11.5
26	Texas	11.6
27	Mississippi	11.6
28	New York	11.7
29	Delaware	11.7
30	Arkansas	11.7
31	Ohio	11.8
32	Alabama	11.8
33	New Jersey	11.8
34	North Carolina	11.8
35	Georgia	11.9
36	Colorado	12.0
37	Maryland	12.0
38	Kentucky	12.1
39	Missouri	12.2
40	Connecticut	12.2
41	South Carolina	12.3
42	Florida	12.4
43	Tennessee	12.4
44	Louisiana	12.6
45	Michigan	13.1
46	Pennsylvania	13.3
47	Illinois	13.6
48	District of Columbia	13.6
	United States	11.2

TABLE 4.21A

Percentage of Infants Born to Women Receiving Early Prenatal Care, All Races, 1986

Rank	State	Percent
1	Connecticut	85.8
2	Iowa	85.7
3	Rhode Island	85.4
4	Massachusetts	84.0
5	New Hampshire	83.7
6	Maine	83.1
7	Wisconsin	82.8
8	Ohio	82.2
9	North Dakota	82.1
10	Utah	82.0
11	Nebraska	81.6
12	New Jersey	81.3
13	Kansas	81.2
14	Michigan	80.4
15	Maryland	80.3
16	Virginia	80.1
17	Minnesota	80.0
18	Missouri	80.0
19	Wyoming	80.0
20	Vermont	78.9
21	Louisiana	78.6
22	Illinois	78.4
23	Delaware	78.2
24	Pennsylvania	78.0
25	North Carolina	77.7
26	Colorado	77.6
27	Hawaii	77.5
28	Washington	77.4
29	Indiana	77.3
30	Montana	77.3
31	Alaska	77.2
32	Idaho	76.1
33	Mississippi	76.0
34	Kentucky	75.6
35	California	75.4
36	Tennessee	75.2
37	South Dakota	74.1
38	Oregon	73.9
39	Nevada	73.7
40	Georgia	73.5
41	Alabama	73.2
42	New York	71.7
43	Arizona	71.6
44	Oklahoma	71.5
45	West Virginia	70.6
46	Arkansas	69.5
47	Florida	68.4
48	South Carolina	67.3
49	Texas	66.8
50	District of Columbia	59.3
51	New Mexico	58.4
	United States	75.9

TABLE 4.21B

Percentage of Infants Born to Women Receiving Early Prenatal Care, White, 1986

Rank	State	Percent
1	Connecticut	88.6
2	Rhode Island	87.4
3	Maryland	86.4
4	Iowa	86.2
5	Louisiana	85.9
6	Massachusetts	85.6
7	Wisconsin	85.5
8	Mississippi	84.9
9	New Jersey	84.8
10	Ohio	84.4
11	Virginia	84.3
12	North Carolina	83.9
13	New Hampshire	83.9
14	North Dakota	83.8
15	Maine	83.3
16	Kansas	83.1
17	Delaware	83.0
18	Utah	83.0
19	Michigan	82.9
20	Nebraska	82.9
21	Hawaii	82.6
22	Missouri	82.3
23	Pennsylvania	82.3
24	Illinois	82.2
25	Minnesota	82.0
26	Wyoming	80.6
27	Alaska	80.6
28	Alabama	80.6
29	Georgia	80.2
30	Montana	79.9
31	Indiana	79.5
32	District of Columbia	79.3
33	Vermont	79.0
34	Washington	78.8
35	Tennessee	78.7
36	South Dakota	78.5
37	Colorado	78.4
38	New York	77.7
39	Kentucky	77.0
40	South Carolina	76.5
41	Idaho	76.4
42	Nevada	76.0
43	California	75.9
44	Oklahoma	75.6
45	Arkansas	74.6
46	Oregon	74.6
47	Florida	74.1
48	Arizona	73.7
49	West Virginia	71.3
50	Texas	68.4
51	New Mexico	60.1
	United States	79.2

TABLE 4.21C

Percentage of Infants Born to Women Receiving Early Prenatal Care, Black, 1986

Rank	State	Percent
1	Hawaii	83.4
2	North Dakota	80.0
3	Idaho	76.0
4	Iowa	74.6
5	New Hampshire	72.7
6	Alaska	71.6
7	Michigan	69.7
8	Rhode Island	69.6
9	Massachusetts	69.0
10	California	69.0
11	Ohio	68.9
12	Nebraska	68.4
13	Virginia	68.1
14	Kansas	68.1
15	Maine	68.0
16	Missouri	67.9
17	Colorado	67.7
18	Louisiana	67.6
19	New Jersey	66.9
20	Maryland	66.9
21	Connecticut	66.9
22	Arizona	66.3
23	Mississippi	65.9
24	Wyoming	65.9
25	Washington	65.5
26	Illinois	65.0
27	Utah	64.4
28	Tennessee	64.0
29	North Carolina	63.5
30	Wisconsin	63.3
31	Delaware	63.0
32	Kentucky	62.9
33	South Dakota	62.2
34	Oregon	62.1
35	Georgia	61.1
36	Alabama	59.0
37	Minnesota	58.8
38	Nevada	57.2
39	Oklahoma	56.8
40	Indiana	56.6
41	Texas	56.4
42	District of Columbia	56.0
43	Montana	55.4
44	West Virginia	54.2
45	South Carolina	53.0
46	Arkansas	52.7
47	Pennsylvania	52.7
48	New Mexico	51.5
49	New York	51.1
50	Florida	50.5
	United States	61.6

TABLE 4.21D

Percentage of Infants Born to Women Receiving Early Prenatal Care, Nonwhite, 1986

Rank	State	Percent
1	Hawaii	75.8
2	New Hampshire	75.7
3	Iowa	74.8
4	Maine	74.6
5	California	73.5
6	Massachusetts	70.9
7	Michigan	70.2
8	Ohio	69.8
9	Alaska	69.5
10	New Jersey	69.0
11	Colorado	68.9
12	Virginia	68.9
13	Rhode Island	68.8
14	Connecticut	68.7
15	Wyoming	68.7
16	Idaho	68.6
17	Missouri	68.4
18	Maryland	68.2
19	Louisiana	68.1
20	Washington	67.6
21	Kansas	67.6
22	Nebraska	66.9
23	North Dakota	66.1
24	Mississippi	66.0
25	Illinois	65.9
26	Oregon	65.5
27	Utah	65.2
28	Tennessee	64.3
29	North Carolina	64.1
30	Delaware	63.8
31	Nevada	63.7
32	Kentucky	63.5
33	Vermont	62.8
34	Wisconsin	61.9
35	Georgia	61.5
36	Arizona	60.4
37	Alabama	59.3
38	Montana	58.8
39	Texas	58.4
40	Indiana	58.2
41	Oklahoma	57.3
42	Minnesota	55.8
43	West Virginia	55.6
44	District of Columbia	55.4
45	Pennsylvania	54.2
46	New York	53.6
47	South Dakota	53.3
48	Arkansas	53.3
49	South Carolina	53.3
50	Florida	51.6
51	New Mexico	50.3
	United States	63.7

TABLE 4.22A

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, All Races, 1986

Rank	State	Percent
1	Iowa	2.2
2	Maine	2.2
3	New Hampshire	2.6
4	Rhode Island	2.6
5	North Dakota	2.7
6	Massachusetts	2.8
7	Utah	3.1
8	Nebraska	3.2
9	Wisconsin	3.2
10	Ohio	3.3
11	Connecticut	3.3
12	Michigan	3.4
13	Minnesota	3.8
14	Kansas	3.9
15	Delaware	3.9
16	Wyoming	3.9
17	Maryland	4.0
18	Virginia	4.0
19	Mississippi	4.1
20	Vermont	4.2
21	Alaska	4.3
22	Missouri	4.3
23	Illinois	4.6
24	North Carolina	4.6
25	Louisiana	4.7
26	Montana	4.7
27	Kentucky	4.9
28	Washington	4.9
29	New Jersey	5.0
30	Hawaii	5.1
31	Colorado	5.2
32	Indiana	5.3
33	Idaho	5.3
34	Pennsylvania	5.3
35	Tennessee	5.5
36	California	5.7
37	South Dakota	5.7
38	Oregon	6.4
39	Georgia	6.4
40	Alabama	6.5
41	Nevada	6.5
42	West Virginia	6.9
43	Arkansas	6.9
44	Oklahoma	7.3
45	South Carolina	8.1
46	Arizona	8.2
47	Florida	8.6
48	New York	10.2
49	District of Columbia	11.4
50	Texas	11.5
51	New Mexico	13.3
	United States	6.0

TABLE 4.22B

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, White, 1986

Rank	State	Percent
1	North Dakota	2.0
2	Iowa	2.1
3	Maine	2.2
4	Rhode Island	2.2
5	Maryland	2.3
6	Wisconsin	2.4
7	Massachusetts	2.4
8	Mississippi	2.5
9	Connecticut	2.5
10	New Hampshire	2.6
11	Delaware	2.7
12	Michigan	2.7
13	Ohio	2.7
14	Utah	2.8
15	Louisiana	2.8
16	Nebraska	2.8
17	North Carolina	2.8
18	Minnesota	2.9
19	Virginia	3.1
20	Hawaii	3.1
21	Alaska	3.3
22	South Dakota	3.3
23	Kansas	3.3
24	Montana	3.5
25	Illinois	3.5
26	Missouri	3.6
27	Pennsylvania	3.6
28	Wyoming	3.7
29	New Jersey	3.8
30	Vermont	4.2
31	Washington	4.4
32	Tennessee	4.5
33	Indiana	4.5
34	Kentucky	4.5
35	Alabama	4.8
36	Georgia	4.8
37	Colorado	4.9
38	District of Columbia	4.9
39	South Carolina	5.1
40	Idaho	5.2
41	Arkansas	5.4
42	California	5.6
43	Nevada	5.6
44	Oklahoma	5.9
45	Oregon	6.1
46	West Virginia	6.5
47	Florida	6.9
48	New York	7.1
49	Arizona	7.5
50	Texas	11.1
51	New Mexico	12.4
	United States	5.0

TABLE 4.22C

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, Black, 1986

Rank	State	Percent
1	Iowa	4.5
2	Mississippi	5.8
3	Nebraska	5.9
4	Rhode Island	5.9
5	Michigan	6.4
6	Massachusetts	6.4
7	Alaska	6.5
8	Ohio	6.6
9	Virginia	6.7
10	California	6.9
11	Kansas	7.3
12	Louisiana	7.5
13	Maryland	7.6
14	Delaware	7.6
15	Missouri	8.0
16	Colorado	8.1
17	Illinois	8.2
18	Kentucky	8.4
19	Connecticut	8.4
20	Tennessee	8.6
21	North Carolina	8.6
22	Georgia	9.2
23	Wisconsin	9.8
24	New Jersey	9.9
25	Alabama	9.9
26	Arizona	10.2
27	Washington	11.0
28	Oregon	11.3
29	Arkansas	12.0
30	Minnesota	12.4
31	Indiana	12.5
32	District of Columbia	12.6
33	South Carolina	12.8
34	Nevada	13.0
35	Oklahoma	13.1
36	Texas	14.0
37	Florida	14.1
38	West Virginia	15.3
39	New Mexico	15.4
40	Pennsylvania	15.4
41	New York	21.2
	United States	10.6

TABLE 4.22D

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, Nonwhite, 1986

Rank	State	Percent
1	Iowa	4.9
2	Hawaii	5.7
3	Mississippi	5.8
4	Massachusetts	6.0
5	California	6.1
6	Michigan	6.2
7	Ohio	6.4
8	Virginia	6.5
9	Alaska	6.6
10	Rhode Island	6.6
11	Nebraska	7.2
12	Maryland	7.3
13	Delaware	7.4
14	Louisiana	7.4
15	Kansas	7.6
16	Colorado	7.8
17	Connecticut	7.9
18	Missouri	7.9
19	Illinois	7.9
20	Idaho	8.0
21	Kentucky	8.2
22	North Carolina	8.4
23	Tennessee	8.5
24	North Dakota	8.6
25	Washington	8.9
26	Georgia	9.1
27	New Jersey	9.1
28	Oregon	9.2
29	Wisconsin	9.4
30	Utah	9.7
31	Alabama	9.8
32	Nevada	10.8
33	Arkansas	11.8
34	Indiana	11.9
35	Arizona	12.1
36	Oklahoma	12.3
37	South Carolina	12.6
38	District of Columbia	12.7
39	Montana	13.1
40	Texas	13.4
41	Florida	13.8
42	Minnesota	14.0
43	West Virginia	14.4
44	Pennsylvania	14.8
45	South Dakota	17.2
46	New Mexico	17.9
47	New York	19.5
	United States	9.9

TABLE 4.23A

Percentage of Infants Born to Women Receiving Adequate Prenatal Care, All Races, 1986

Rank	State	Percent
1	Iowa	80.5
2	Connecticut	80.2
3	New Hampshire	79.6
4	Massachusetts	79.5
5	Rhode Island	78.2
6	Wisconsin	77.5
7	Maine	76.7
8	Kansas	76.2
9	Michigan	76.0
10	Ohio	76.0
11	Maryland	75.3
12	Missouri	74.4
13	Nebraska	74.1
14	North Carolina	73.6
15	Virginia	72.8
16	New Jersey	72.1
17	Washington	72.0
18	Minnesota	71.4
19	Colorado	71.2
20	Utah	71.2
21	Wyoming	71.1
22	Indiana	70.8
23	Pennsylvania	69.9
24	Mississippi	69.4
25	Idaho	69.3
26	Montana	69.0
27	Kentucky	69.0
28	Illinois	68.6
29	Tennessee	68.3
30	Delaware	68.2
31	Oregon	68.0
32	Alaska	67.4
33	Georgia	67.3
34	Louisiana	66.7
35	Hawaii	66.5
36	Alabama	66.3
37	Nevada	65.6
38	North Dakota	65.0
39	South Dakota	63.8
40	Oklahoma	62.9
41	Arizona	62.5
42	Florida	62.0
43	West Virginia	61.9
44	Arkansas	61.7
45	Vermont	60.5
46	New York	60.4
47	Texas	57.8
48	South Carolina	57.6
49	New Mexico	50.2
50	District of Columbia	50.0
	United States	68.4

TABLE 4.23B

Percentage of Infants Born to Women Receiving Adequate Prenatal Care, White, 1986

Rank	State	Percent
1	Connecticut	83.9
2	Maryland	82.1
3	Iowa	81.2
4	Massachusetts	81.1
5	Wisconsin	81.1
6	Mississippi	80.9
7	North Carolina	80.7
8	Rhode Island	80.5
9	New Hampshire	79.8
10	Louisiana	78.7
11	Ohio	78.5
12	Michigan	78.5
13	Kansas	78.4
14	Virginia	77.6
15	Missouri	77.4
16	Maine	76.9
17	New Jersey	76.5
18	Alabama	75.9
19	Nebraska	75.7
20	Georgia	74.9
21	Hawaii	74.6
22	Pennsylvania	74.3
23	Illinois	74.2
24	Washington	73.7
25	District of Columbia	73.7
26	Minnesota	73.4
27	Indiana	73.3
28	Delaware	73.1
29	Tennessee	73.1
30	Montana	72.8
31	Colorado	72.3
32	Utah	72.3
33	Wyoming	72.2
34	Alaska	71.9
35	Kentucky	70.5
36	Idaho	69.6
37	South Dakota	69.2
38	Oregon	68.9
39	Nevada	68.2
40	Arkansas	68.2
41	Florida	67.8
42	Oklahoma	67.6
43	New York	67.2
44	North Dakota	67.0
45	South Carolina	66.7
46	Arizona	64.9
47	West Virginia	62.7
48	Vermont	60.7
49	Texas	59.6
50	New Mexico	52.0
	United States	72.6

TABLE 4.23C

Percentage of Infants Born to Women Receiving Adequate Prenatal Care, Black, 1986

Rank	State	Percent
1	Hawaii	74.4
2	North Dakota	73.7
3	Idaho	73.0
4	New Hampshire	67.8
5	Michigan	65.3
6	Iowa	64.5
7	Maine	64.4
8	Massachusetts	64.0
9	Alaska	62.9
10	Wyoming	62.0
11	Ohio	60.4
12	Maryland	59.9
13	Kansas	59.9
14	Rhode Island	59.7
15	Virginia	59.3
16	Colorado	58.6
17	Washington	58.5
18	Missouri	58.5
19	Nebraska	57.5
20	North Carolina	57.4
21	Mississippi	56.5
22	Arizona	55.9
23	Connecticut	55.2
24	Kentucky	54.5
25	New Jersey	53.8
26	Georgia	52.9
27	Oregon	52.7
28	Tennessee	52.6
29	South Dakota	52.6
30	Delaware	52.3
31	Minnesota	52.2
32	Utah	52.0
33	Louisiana	49.1
34	Illinois	48.8
35	Wisconsin	47.9
36	Alabama	47.8
37	Nevada	47.0
38	Texas	46.9
39	Indiana	46.7
40	Oklahoma	46.0
41	District of Columbia	45.9
42	New Mexico	45.3
43	Florida	44.0
44	South Carolina	43.2
45	Pennsylvania	42.9
46	West Virginia	42.7
47	Arkansas	40.2
48	New York	37.7
	United States	50.6

TABLE 4.23D

Percentage of Infants Born to Women Receiving Adequate Prenatal Care, Nonwhite, 1986

Rank	State	Percent
1	New Hampshire	73.1
2	Massachusetts	66.4
3	Michigan	65.7
4	Maine	65.3
5	Iowa	65.2
6	Hawaii	63.8
7	Idaho	63.2
8	Maryland	61.5
9	Ohio	61.4
10	Washington	60.4
11	Colorado	60.3
12	Virginia	59.8
13	Kansas	59.5
14	Missouri	59.1
15	Rhode Island	58.9
16	North Carolina	58.1
17	Connecticut	57.6
18	Alaska	57.2
19	Oregon	56.9
20	Mississippi	56.6
21	New Jersey	56.5
22	Nebraska	56.1
23	Kentucky	55.0
24	Nevada	54.0
25	Georgia	53.3
26	Delaware	53.3
27	Tennessee	53.1
28	Utah	53.0
29	Wyoming	50.8
30	Illinois	50.1
31	Louisiana	49.5
32	Arizona	49.3
33	Texas	48.7
34	Indiana	48.6
35	Wisconsin	48.3
36	Alabama	48.2
37	Minnesota	46.5
38	Oklahoma	46.2
39	North Dakota	46.0
40	District of Columbia	45.4
41	Florida	45.0
42	Vermont	44.6
43	West Virginia	44.3
44	Pennsylvania	44.3
45	South Carolina	43.6
46	Montana	42.5
47	New Mexico	42.1
48	Arkansas	40.9
49	New York	40.1
50	South Dakota	37.0
	United States	51.8

TABLE 4.24A

Percentage of Infants Born to Women Receiving Inadequate Prenatal Care, All Races, 1986

Rank	State	Percent
1	Iowa	2.9
2	New Hampshire	3.1
3	Maine	3.1
4	Massachusetts	3.4
5	Rhode Island	3.5
6	Wisconsin	4.1
7	Connecticut	4.2
8	Michigan	4.2
9	Nebraska	4.4
10	Minnesota	4.6
11	Ohio	4.6
12	Kansas	4.9
13	Utah	4.9
14	Maryland	5.0
15	North Dakota	5.0
16	Wyoming	5.4
17	Delaware	5.5
18	Vermont	5.5
19	Virginia	5.7
20	North Carolina	5.8
21	Missouri	5.9
22	Washington	6.1
23	Mississippi	6.2
24	New Jersey	6.4
25	Idaho	6.5
26	Indiana	6.7
27	Montana	6.8
28	Illinois	6.8
29	Kentucky	6.8
30	Colorado	6.8
31	Pennsylvania	7.0
32	Alaska	7.0
33	Oregon	7.8
34	Hawaii	7.8
35	Tennessee	7.8
36	Louisiana	8.0
37	Georgia	8.4
38	South Dakota	8.5
39	West Virginia	9.3
40	Alabama	9.4
41	Nevada	9.7
42	Arkansas	9.7
43	Oklahoma	9.8
44	Arizona	10.8
45	South Carolina	10.9
46	Florida	10.9
47	New York	13.2
48	New Mexico	14.4
49	Texas	14.9
50	District of Columbia	15.7
	United States	8.0

TABLE 4.24B

Percentage of Infants Born to Women Receiving Inadequate Prenatal Care, White, 1986

Rank	State	Percent
1	Iowa	2.7
2	Rhode Island	2.8
3	Massachusetts	2.9
4	Maryland	2.9
5	Wisconsin	3.0
6	Maine	3.0
7	New Hampshire	3.0
8	Mississippi	3.1
9	Connecticut	3.1
10	Michigan	3.3
11	North Carolina	3.5
12	Minnesota	3.6
13	Delaware	3.7
14	Nebraska	3.7
15	Ohio	3.7
16	North Dakota	3.9
17	Kansas	4.2
18	Virginia	4.2
19	Louisiana	4.3
20	Utah	4.4
21	Missouri	4.6
22	New Jersey	4.7
23	Montana	4.7
24	South Dakota	4.8
25	Illinois	4.8
26	Pennsylvania	4.9
27	Alaska	5.0
28	Wyoming	5.0
29	Hawaii	5.1
30	Washington	5.4
31	Vermont	5.5
32	Indiana	5.7
33	Georgia	6.0
34	Tennessee	6.1
35	District of Columbia	6.1
36	Alabama	6.1
37	Kentucky	6.3
38	Idaho	6.3
39	Colorado	6.4
40	South Carolina	6.6
41	Arkansas	6.9
42	Oregon	7.4
43	Oklahoma	7.7
44	Nevada	8.2
45	Florida	8.7
46	West Virginia	8.8
47	New York	9.2
48	Arizona	9.7
49	New Mexico	13.0
50	Texas	14.4
	United States	6.3

TABLE 4.24C

Percentage of Infants Born to Women Receiving Inadequate Prenatal Care, Black, 1986

Rank	State	Percent
1	Hawaii	5.5
2	Iowa	7.2
3	Michigan	8.0
4	Rhode Island	8.1
5	Massachusetts	8.6
6	Alaska	9.3
7	Mississippi	9.7
8	Maryland	9.9
9	Virginia	9.9
10	Kansas	10.0
11	Ohio	10.3
12	North Carolina	11.1
13	Delaware	11.3
14	Connecticut	11.3
15	Kentucky	11.6
16	Nebraska	12.3
17	Colorado	12.4
18	Missouri	12.4
19	Washington	12.6
20	Georgia	12.9
21	Louisiana	13.5
22	Tennessee	13.7
23	Illinois	13.8
24	New Jersey	13.9
25	Utah	13.9
26	Wisconsin	14.0
27	Arizona	14.1
28	Minnesota	14.3
29	New Mexico	15.5
30	Alabama	15.9
31	Oregon	16.1
32	Indiana	17.1
33	South Carolina	17.6
34	District of Columbia	17.7
35	Florida	18.2
36	Texas	18.5
37	Oklahoma	18.7
38	Arkansas	19.0
39	Nevada	19.9
40	Pennsylvania	20.2
41	West Virginia	22.8
42	New York	27.3
	United States	15.3

TABLE 4.24D

Percentage of Infants Born to Women Receiving Inadequate Prenatal Care, Nonwhite, 1986

Rank	State	Percent
1	Iowa	7.2
2	Massachusetts	7.7
3	Michigan	7.8
4	Hawaii	8.7
5	Rhode Island	9.3
6	Maryland	9.4
7	Mississippi	9.6
8	Virginia	9.8
9	Ohio	9.9
10	Kansas	10.4
11	Connecticut	10.6
12	North Carolina	10.9
13	Delaware	10.9
14	Washington	11.1
15	Kentucky	11.4
16	Colorado	11.4
17	Alaska	11.7
18	Wyoming	11.8
19	Idaho	12.0
20	Missouri	12.1
21	Oregon	12.6
22	New Jersey	12.7
23	Georgia	12.7
24	Nebraska	12.8
25	Illinois	13.2
26	Louisiana	13.3
27	Wisconsin	13.5
28	Tennessee	13.6
29	Utah	14.4
30	North Dakota	15.4
31	Alabama	15.7
32	Nevada	16.1
33	Indiana	16.2
34	Arizona	17.0
35	Oklahoma	17.2
36	Minnesota	17.3
37	South Carolina	17.4
38	District of Columbia	17.5
39	Texas	17.6
40	Florida	17.8
41	Arkansas	18.7
42	Pennsylvania	19.4
43	New Mexico	20.8
44	Montana	21.3
45	West Virginia	21.4
46	New York	25.2
47	South Dakota	26.6
	United States	14.7

TABLE 4.25A

Percentage of Infants Who Were Born to Women Under Age 20, All Races, 1986

Rank	State	Percent
1	Minnesota	7.3
2	New Hampshire	7.7
3	North Dakota	8.0
4	Massachusetts	8.3
5	Alaska	8.7
6	Connecticut	8.8
7	Nebraska	8.9
8	Iowa	9.2
9	Vermont	9.2
10	Utah	9.3
11	New Jersey	9.4
12	Hawaii	9.6
13	New York	9.7
14	South Dakota	9.7
15	Wisconsin	9.9
16	Montana	10.1
17	Colorado	10.2
18	Rhode Island	10.3
19	Washington	10.4
20	Wyoming	10.7
21	Idaho	10.8
22	Oregon	10.9
23	California	10.9
24	Pennsylvania	11.3
25	Kansas	11.5
26	Maine	11.6
27	Maryland	11.7
28	Nevada	11.9
29	Virginia	12.0
30	Michigan	12.3
31	Illinois	12.5
32	Delaware	13.2
33	Ohio	13.3
34	Missouri	13.4
35	Florida	13.8
36	Arizona	13.8
37	Indiana	14.0
38	Texas	15.2
39	New Mexico	15.3
40	Oklahoma	15.6
41	North Carolina	15.9
42	South Carolina	16.6
43	Louisiana	16.8
44	Tennessee	17.0
45	Georgia	17.0
46	District of Columbia	17.0
47	West Virginia	17.1
48	Alabama	17.4
49	Kentucky	17.4
50	Arkansas	19.0
51	Mississippi	20.5
	United States	12.6

TABLE 4.25B

Percentage of Infants Who Were Born to Women Under Age 20, White, 1986

Rank	State	Percent
1	District of Columbia	4.5
2	New Jersey	6.3
3	Minnesota	6.3
4	Hawaii	6.4
5	North Dakota	6.7
6	Connecticut	6.8
7	Alaska	6.9
8	South Dakota	7.5
9	Massachusetts	7.6
10	New Hampshire	7.7
11	New York	7.8
12	Nebraska	7.9
13	Wisconsin	7.9
14	Maryland	8.1
15	Montana	8.7
16	Iowa	8.7
17	Illinois	8.8
18	Pennsylvania	9.1
19	Utah	9.2
20	Vermont	9.2
21	Virginia	9.2
22	Delaware	9.3
23	Rhode Island	9.5
24	Michigan	9.8
25	Colorado	9.8
26	Washington	9.9
27	Kansas	10.3
28	Nevada	10.5
29	Wyoming	10.5
30	California	10.6
31	Florida	10.6
32	Idaho	10.7
33	Oregon	10.7
34	Missouri	11.2
35	Ohio	11.5
36	Maine	11.5
37	South Carolina	12.4
38	Louisiana	12.4
39	North Carolina	12.5
40	Indiana	12.5
41	Arizona	12.9
42	Georgia	13.6
43	Alabama	13.7
44	Oklahoma	13.8
45	Texas	14.1
46	Mississippi	14.1
47	Tennessee	14.6
48	New Mexico	15.0
49	Arkansas	15.9
50	Kentucky	16.7
51	West Virginia	17.0
	United States	10.6

TABLE 4.25C

Percentage of Infants Who Were Born to Women Under Age 20, Black, 1986

Rank	State	Percent
1	Hawaii	7.2
2	Alaska	10.6
3	New Mexico	16.0
4	Utah	16.1
5	Massachusetts	16.8
6	New York	16.9
7	Washington	17.1
8	Colorado	17.6
9	California	18.3
10	Oregon	19.2
11	Rhode Island	19.4
12	District of Columbia	20.1
13	Maryland	20.4
14	West Virginia	21.2
15	Minnesota	21.2
16	Arizona	21.3
17	Virginia	21.5
18	Kansas	22.4
19	Nebraska	22.6
20	Connecticut	22.9
21	New Jersey	22.9
22	Oklahoma	23.3
23	South Carolina	23.4
24	Texas	23.6
25	Louisiana	23.8
26	Georgia	23.8
27	Florida	24.0
28	North Carolina	24.1
29	Michigan	24.1
30	Pennsylvania	24.2
31	Ohio	24.5
32	Iowa	24.7
33	Nevada	24.8
34	Alabama	24.9
35	Kentucky	25.2
36	Tennessee	25.2
37	Delaware	25.6
38	Missouri	25.7
39	Illinois	26.2
40	Indiana	27.4
41	Mississippi	28.0
42	Wisconsin	29.0
43	Arkansas	29.3
	United States	22.8

TABLE 4.25D

Percentage of Infants Who Were Born to Women Under Age 20, Nonwhite, 1986

Rank	State	Percent
1	Hawaii	10.6
2	California	12.1
3	Utah	12.3
4	Alaska	12.6
5	Oregon	13.1
6	Massachusetts	13.9
7	Washington	13.9
8	Colorado	14.5
9	Idaho	14.6
10	New York	15.0
11	Wyoming	15.0
12	Maine	15.1
13	New Mexico	16.8
14	Rhode Island	17.0
15	Minnesota	18.2
16	Arizona	18.3
17	Nevada	18.3
18	Maryland	18.8
19	Iowa	19.3
20	Montana	19.4
21	Virginia	19.5
22	District of Columbia	19.5
23	West Virginia	19.5
24	North Dakota	19.8
25	Kansas	19.9
26	Nebraska	20.0
27	New Jersey	20.1
28	South Dakota	20.5
29	Connecticut	20.6
30	Texas	21.0
31	Oklahoma	22.0
32	Pennsylvania	22.6
33	Michigan	22.7
34	Florida	23.0
35	South Carolina	23.0
36	Louisiana	23.0
37	Georgia	23.2
38	Ohio	23.2
39	North Carolina	23.4
40	Kentucky	23.7
41	Missouri	24.4
42	Alabama	24.4
43	Delaware	24.4
44	Illinois	24.5
45	Tennessee	24.6
46	Wisconsin	25.2
47	Indiana	26.0
48	Mississippi	27.7
49	Arkansas	28.5
	United States	19.9

TABLE 4.26A

Percentage of Infants Who Were Born to Women Under Age 15, All Races, 1986

Rank	State	Percent
1	Minnesota	0.1
2	Utah	0.1
3	Iowa	0.1
4	Massachusetts	0.1
5	Nebraska	0.1
6	Colorado	0.2
7	Washington	0.2
8	Oregon	0.2
9	Wisconsin	0.2
10	New York	0.2
11	West Virginia	0.2
12	Kansas	0.2
13	California	0.2
14	Pennsylvania	0.2
15	Missouri	0.2
16	New Jersey	0.2
17	Connecticut	0.2
18	Michigan	0.2
19	Arizona	0.2
20	Ohio	0.2
21	Indiana	0.3
22	New Mexico	0.3
23	Oklahoma	0.3
24	Illinois	0.3
25	Virginia	0.3
26	Kentucky	0.3
27	Maryland	0.3
28	Texas	0.4
29	Delaware	0.4
30	Florida	0.4
31	North Carolina	0.4
32	Tennessee	0.4
33	Georgia	0.5
34	Alabama	0.5
35	South Carolina	0.5
36	Louisiana	0.5
37	Arkansas	0.5
38	District of Columbia	0.7
39	Mississippi	0.8
	United States	0.3

TABLE 4.26B

Percentage of Infants Who Were Born to Women Under Age 15, White, 1986

Rank	State	Percent
1	Wisconsin	0.1
2	Missouri	0.1
3	Michigan	0.1
4	Pennsylvania	0.1
5	Illinois	0.1
6	Massachusetts	0.1
7	New Jersey	0.1
8	New York	0.1
9	Maryland	0.1
10	Ohio	0.1
11	Virginia	0.1
12	Colorado	0.1
13	Kansas	0.1
14	Connecticut	0.1
15	Washington	0.1
16	Florida	0.1
17	Oregon	0.1
18	Indiana	0.1
19	Georgia	0.1
20	California	0.2
21	North Carolina	0.2
22	Louisiana	0.2
23	Alabama	0.2
24	West Virginia	0.2
25	Oklahoma	0.2
26	South Carolina	0.2
27	Arizona	0.2
28	Mississippi	0.2
29	Tennessee	0.2
30	Arkansas	0.2
31	New Mexico	0.2
32	Kentucky	0.2
33	Texas	0.3
	United States	0.1

TABLE 4.26C

Percentage of Infants Who Were Born to Women Under Age 15, Black, 1986

Rank	State	Percent
1	New York	0.5
2	California	0.5
3	New Jersey	0.8
4	Oklahoma	0.8
5	Maryland	0.9
6	District of Columbia	0.9
7	Kansas	0.9
8	South Carolina	1.0
9	Pennsylvania	1.0
10	North Carolina	1.0
11	Connecticut	1.0
12	Michigan	1.0
13	Virginia	1.0
14	Illinois	1.0
15	Missouri	1.0
16	Ohio	1.0
17	Louisiana	1.1
18	Georgia	1.1
19	Alabama	1.1
20	Texas	1.1
21	Indiana	1.2
22	Florida	1.2
23	Tennessee	1.3
24	Kentucky	1.3
25	Delaware	1.3
26	Wisconsin	1.3
27	Mississippi	1.6
28	Arkansas	1.6
	United States	0.9

TABLE 4.26D

Percentage of Infants Who Were Born to Women Under Age 15, Nonwhite, 1986

Rank	State	Percent
1	California	0.3
2	Washington	0.4
3	New York	0.4
4	Oklahoma	0.5
5	Arizona	0.6
6	Minnesota	0.6
7	New Jersey	0.7
8	Kansas	0.7
9	Maryland	0.8
10	Connecticut	0.9
11	District of Columbia	0.9
12	Pennsylvania	0.9
13	Virginia	0.9
14	North Carolina	0.9
15	Michigan	0.9
16	South Carolina	0.9
17	Illinois	1.0
18	Missouri	1.0
19	Texas	1.0
20	Ohio	1.0
21	Louisiana	1.0
22	Georgia	1.1
23	Alabama	1.1
24	Wisconsin	1.1
25	Indiana	1.1
26	Florida	1.1
27	Kentucky	1.2
28	Tennessee	1.2
29	Delaware	1.3
30	Arkansas	1.5
31	Mississippi	1.5
	United States	0.8

TABLE 4.27A

Percentage of Births to Teens That Were Low Birthweight, All Races, 1986

Rank	State	Percent
1	Alaska	5.8
2	South Dakota	6.5
3	North Dakota	6.6
4	Idaho	6.6
5	Maine	6.9
6	Oregon	7.0
7	Washington	7.0
8	California	7.4
9	Montana	7.4
10	Minnesota	7.6
11	Nebraska	7.6
12	Oklahoma	7.7
13	Rhode Island	7.7
14	Wyoming	7.7
15	Arizona	7.7
16	Vermont	7.7
17	New Hampshire	8.0
18	Wisconsin	8.0
19	Utah	8.4
20	Iowa	8.6
21	West Virginia	8.6
22	Missouri	8.6
23	Indiana	8.8
24	Kansas	8.9
25	Massachusetts	8.9
26	Kentucky	8.9
27	New Mexico	8.9
28	Ohio	9.1
29	Michigan	9.1
30	Texas	9.2
31	Hawaii	9.2
32	Nevada	9.3
33	Colorado	9.5
34	Virginia	9.6
35	Tennessee	9.9
36	Arkansas	9.9
37	Pennsylvania	10.1
38	New York	10.3
39	Florida	10.4
40	Connecticut	10.4
41	Alabama	10.6
42	North Carolina	10.7
43	Illinois	10.7
44	Georgia	10.7
45	Maryland	10.7
46	New Jersey	10.8
47	Delaware	11.3
48	Mississippi	11.4
49	Louisiana	11.4
50	South Carolina	11.4
51	District of Columbia	13.0
	United States	9.4

TABLE 4.27B

Percentage of Births to Teens That Were Low Birthweight, White, 1986

Rank	State	Percent
1	Alaska	5.4
2	South Dakota	6.0
3	Washington	6.4
4	California	6.4
5	Rhode Island	6.5
6	North Dakota	6.7
7	Nebraska	6.8
8	Idaho	6.8
9	Minnesota	6.8
10	Wisconsin	6.9
11	Maine	6.9
12	Oregon	7.1
13	Oklahoma	7.1
14	Missouri	7.3
15	Michigan	7.4
16	Montana	7.4
17	Maryland	7.4
18	Wyoming	7.6
19	Louisiana	7.7
20	Vermont	7.7
21	Florida	7.7
22	Indiana	7.7
23	Texas	7.7
24	Virginia	7.8
25	Arizona	7.8
26	Nevada	7.9
27	Illinois	7.9
28	Arkansas	7.9
29	New Hampshire	8.0
30	Mississippi	8.0
31	Ohio	8.0
32	Alabama	8.0
33	Kansas	8.0
34	South Carolina	8.1
35	Kentucky	8.1
36	Iowa	8.1
37	Georgia	8.1
38	Tennessee	8.2
39	Pennsylvania	8.3
40	North Carolina	8.3
41	Massachusetts	8.4
42	Connecticut	8.4
43	West Virginia	8.4
44	Utah	8.4
45	New York	8.5
46	New Jersey	9.0
47	Colorado	9.1
48	Delaware	9.3
49	New Mexico	9.5
	United States	7.7

TABLE 4.27C

Percentage of Births to Teens That Were Low Birthweight, Black, 1986

Rank	State	Percent
1	Wisconsin	11.3
2	California	11.5
3	Missouri	11.7
4	Massachusetts	11.8
5	Oklahoma	11.8
6	Virginia	12.1
7	Arizona	12.1
8	Ohio	12.1
9	Michigan	12.5
10	Indiana	12.9
11	Nebraska	13.0
12	Kansas	13.0
13	New York	13.0
14	New Jersey	13.1
15	Tennessee	13.1
16	Washington	13.2
17	Alabama	13.2
18	Arkansas	13.3
19	Mississippi	13.3
20	Delaware	13.4
21	Georgia	13.5
22	District of Columbia	13.5
23	North Carolina	13.6
24	Maryland	13.8
25	Illinois	13.9
26	Pennsylvania	14.0
27	Colorado	14.0
28	Kentucky	14.0
29	Florida	14.1
30	South Carolina	14.2
31	Texas	14.2
32	Louisiana	14.4
33	Minnesota	14.4
34	Connecticut	14.5
35	Iowa	14.6
36	Nevada	15.0
	United States	13.3

TABLE 4.27D

Percentage of Births to Teens That Were Low Birthweight, Nonwhite, 1986

Rank	State	Percent
1	Alaska	6.3
2	New Mexico	6.5
3	Arizona	7.5
4	South Dakota	7.5
5	Oklahoma	8.9
6	Hawaii	9.6
7	Washington	10.2
8	California	10.6
9	Minnesota	10.7
10	Wisconsin	10.8
11	Massachusetts	11.2
12	Nebraska	11.7
13	Missouri	11.7
14	Kansas	11.9
15	Ohio	12.0
16	Virginia	12.0
17	Michigan	12.3
18	Colorado	12.4
19	Rhode Island	12.9
20	New York	12.9
21	Indiana	12.9
22	New Jersey	12.9
23	Iowa	13.1
24	Tennessee	13.1
25	Nevada	13.1
26	Alabama	13.2
27	Arkansas	13.2
28	District of Columbia	13.3
29	Mississippi	13.3
30	North Carolina	13.4
31	Georgia	13.4
32	Delaware	13.5
33	Maryland	13.5
34	Pennsylvania	13.9
35	Illinois	13.9
36	Kentucky	14.0
37	Florida	14.0
38	Texas	14.1
39	South Carolina	14.1
40	Louisiana	14.2
41	Connecticut	14.5
	United States	12.7

TABLE 4.28A

Percentage of All Low-Birthweight Infants Who Were Born to Teens, All Races, 1986

Rank	State	Percent
1	North Dakota	10.7
2	Minnesota	10.9
3	Alaska	10.9
4	New Hampshire	11.9
5	South Dakota	12.0
6	Wyoming	12.1
7	Nebraska	12.3
8	Rhode Island	12.3
9	Colorado	12.6
10	Montana	12.7
11	Hawaii	12.8
12	Massachusetts	12.8
13	California	13.6
14	New York	13.7
15	Idaho	13.7
16	Vermont	13.8
17	Connecticut	14.0
18	Washington	14.1
19	Utah	14.4
20	Wisconsin	14.7
21	Oregon	14.8
22	New Jersey	15.0
23	Nevada	15.0
24	Iowa	15.1
25	Maine	15.6
26	Michigan	16.2
27	Kansas	16.4
28	Maryland	16.4
29	Virginia	16.5
30	Pennsylvania	16.6
31	Missouri	17.0
32	Arizona	17.2
33	Illinois	17.9
34	District of Columbia	18.1
35	Ohio	18.2
36	Oklahoma	18.4
37	Florida	18.8
38	New Mexico	19.4
39	Indiana	19.4
40	Delaware	19.9
41	Texas	20.3
42	West Virginia	21.1
43	Tennessee	21.2
44	North Carolina	21.4
45	Kentucky	21.9
46	South Carolina	22.1
47	Louisiana	22.1
48	Georgia	22.5
49	Alabama	22.9
50	Arkansas	24.7
51	Mississippi	27.0
	United States	17.3

TABLE 4.28B

Percentage of All Low-Birthweight Infants Who Were Born to Teens, White, 1986

Rank	State	Percent
1	South Dakota	9.1
2	Minnesota	9.1
3	North Dakota	9.5
4	Alaska	9.5
5	Connecticut	10.2
6	Nebraska	10.3
7	Rhode Island	10.4
8	New Jersey	10.5
9	Montana	10.9
10	Maryland	11.0
11	Wisconsin	11.5
12	New York	11.6
13	Wyoming	11.8
14	New Hampshire	12.0
15	Massachusetts	12.0
16	Colorado	12.2
17	Illinois	12.5
18	Nevada	12.6
19	Virginia	12.8
20	California	13.1
21	Washington	13.2
22	Michigan	13.3
23	Pennsylvania	13.4
24	Florida	13.8
25	Vermont	13.9
26	Iowa	14.1
27	Idaho	14.2
28	Missouri	14.3
29	Utah	14.4
30	Delaware	14.5
31	Kansas	14.8
32	Oregon	15.1
33	Maine	15.6
34	Ohio	16.1
35	Louisiana	16.3
36	South Carolina	16.3
37	Oklahoma	16.5
38	Arizona	16.7
39	Indiana	16.8
40	North Carolina	16.9
41	Alabama	18.3
42	Tennessee	18.4
43	Texas	18.4
44	Georgia	18.5
45	Mississippi	18.8
46	New Mexico	19.8
47	Arkansas	20.1
48	Kentucky	20.8
49	West Virginia	21.0
	United States	14.4

TABLE 4.28C

Percentage of All Low-Birthweight Infants Who Were Born to Teens, Black, 1986

Rank	State	Percent
1	Colorado	17.1
2	New York	17.4
3	California	17.6
4	Massachusetts	18.5
5	District of Columbia	19.2
6	Washington	21.2
7	Michigan	21.7
8	Maryland	22.2
9	Virginia	22.8
10	Arizona	23.0
11	Minnesota	23.5
12	New Jersey	23.6
13	Missouri	24.0
14	Oklahoma	24.1
15	Kansas	24.3
16	Pennsylvania	24.4
17	Ohio	24.5
18	Connecticut	25.6
19	Illinois	25.7
20	Nebraska	26.2
21	Tennessee	26.2
22	Louisiana	26.4
23	Florida	26.4
24	Georgia	26.5
25	Nevada	26.6
26	South Carolina	26.8
27	North Carolina	26.9
28	Wisconsin	27.1
29	Texas	27.4
30	Alabama	27.5
31	Kentucky	28.2
32	Delaware	28.4
33	Indiana	29.8
34	Iowa	29.8
35	Mississippi	31.8
36	Arkansas	32.5
	United States	24.1

TABLE 4.28D

Percentage of All Low-Birthweight Infants Who Were Born to Teens, Nonwhite, 1986

Rank	State	Percent
1	Alaska	12.9
2	Hawaii	13.9
3	California	14.5
4	Colorado	15.1
5	New York	16.5
6	Massachusetts	16.6
7	New Mexico	17.2
8	Washington	17.8
9	District of Columbia	19.0
10	Arizona	19.4
11	Maryland	21.1
12	Nevada	21.2
13	Minnesota	21.3
14	Michigan	21.4
15	Virginia	21.5
16	Rhode Island	21.6
17	South Dakota	21.7
18	New Jersey	22.0
19	Kansas	22.3
20	Oklahoma	23.1
21	Missouri	23.3
22	Pennsylvania	23.7
23	Ohio	23.7
24	Connecticut	24.4
25	Nebraska	24.6
26	Iowa	24.7
27	Illinois	25.1
28	Texas	25.7
29	Tennessee	25.9
30	Florida	25.9
31	Louisiana	25.9
32	Georgia	26.1
33	Wisconsin	26.2
34	South Carolina	26.5
35	North Carolina	26.5
36	Alabama	27.3
37	Kentucky	27.4
38	Delaware	28.0
39	Indiana	29.2
40	Mississippi	31.6
41	Arkansas	32.1
	United States	22.6

TABLE 4.29A

Percentage of Infants Born to Teen Mothers Who Received Early Prenatal Care, All Races, 1986

Rank	State	Percent
1	Iowa	66.1
2	Maine	66.1
3	Rhode Island	65.8
4	Utah	64.6
5	Louisiana	62.7
6	Wyoming	61.8
7	Ohio	61.0
8	Massachusetts	60.5
9	Kansas	60.3
10	Mississippi	60.0
11	North Dakota	59.6
12	Wisconsin	59.5
13	New Hampshire	58.9
14	Alaska	58.4
15	Connecticut	58.2
16	Hawaii	57.9
17	Virginia	57.9
18	Michigan	57.8
19	Kentucky	57.8
20	Idaho	57.7
21	Delaware	57.4
22	Maryland	57.2
23	Vermont	57.1
24	Nebraska	56.8
25	Missouri	56.1
26	California	55.4
27	North Carolina	55.4
28	Montana	55.1
29	Indiana	54.9
30	Tennessee	54.9
31	Illinois	54.5
32	Minnesota	54.3
33	Washington	53.9
34	Georgia	53.4
35	Arizona	53.0
36	New Jersey	52.8
37	Pennsylvania	52.7
38	South Dakota	52.0
39	Arkansas	50.6
40	Colorado	50.6
41	Alabama	50.4
42	Oklahoma	50.2
43	Nevada	49.4
44	Oregon	49.4
45	West Virginia	47.7
46	New York	45.1
47	Texas	43.6
48	South Carolina	41.6
49	Florida	41.4
50	New Mexico	39.7
51	District of Columbia	37.5
	United States	53.0

TABLE 4.29B

Percentage of Infants Born to Teen Mothers Who Received Early Prenatal Care, White, 1986

Rank	State	Percent
1	Louisiana	69.8
2	Hawaii	69.2
3	Mississippi	69.2
4	Rhode Island	67.9
5	Iowa	66.5
6	Maine	66.3
7	Utah	65.8
8	Delaware	63.9
9	Maryland	63.7
10	Virginia	63.4
11	Ohio	63.4
12	Wyoming	62.8
13	Wisconsin	62.6
14	Connecticut	62.2
15	North Dakota	62.2
16	Kansas	61.9
17	Massachusetts	61.9
18	North Carolina	61.6
19	Michigan	60.6
20	Georgia	60.5
21	Alaska	59.9
22	Kentucky	59.1
23	New Hampshire	59.1
24	Pennsylvania	58.8
25	South Dakota	58.5
26	Nebraska	58.2
27	Indiana	57.8
28	Idaho	57.7
29	Minnesota	57.6
30	Missouri	57.5
31	Vermont	57.5
32	Tennessee	57.5
33	Alabama	57.4
34	Arkansas	56.9
35	Illinois	56.8
36	Montana	56.2
37	California	55.6
38	Washington	55.4
39	Arizona	54.6
40	Oklahoma	53.8
41	New Jersey	53.5
42	Nevada	52.8
43	Colorado	50.8
44	Oregon	49.7
45	New York	49.5
46	South Carolina	49.5
47	West Virginia	48.4
48	Florida	46.2
49	Texas	45.1
50	New Mexico	40.3
	United States	55.9

TABLE 4.29C

Percentage of Infants Born to Teen Mothers Who Received Early Prenatal Care, Black, 1986

Rank	State	Percent
1	Hawaii	63.9
2	Iowa	62.7
3	Alaska	58.2
4	Rhode Island	58.2
5	Louisiana	57.2
6	California	54.8
7	Mississippi	54.6
8	Ohio	54.3
9	Massachusetts	54.2
10	Nebraska	53.7
11	Kansas	53.4
12	Michigan	53.0
13	Missouri	52.9
14	Wisconsin	52.9
15	New Jersey	52.2
16	Illinois	51.8
17	Maryland	51.5
18	Arizona	51.1
19	Virginia	50.9
20	Delaware	50.1
21	Tennessee	50.1
22	Connecticut	49.8
23	Colorado	49.5
24	Kentucky	49.4
25	North Carolina	47.7
26	Oregon	47.3
27	Georgia	45.9
28	Washington	45.6
29	Alabama	42.9
30	Indiana	42.8
31	Minnesota	42.6
32	Oklahoma	40.0
33	Arkansas	39.7
34	Pennsylvania	39.1
35	Nevada	38.7
36	Texas	38.3
37	District of Columbia	38.0
38	New York	38.0
39	West Virginia	35.9
40	South Carolina	35.1
41	Florida	34.8
	United States	46.8

TABLE 4.29D

Percentage of Infants Born to Teen Mothers Who Received Early Prenatal Care, Nonwhite, 1986

Rank	State	Percent
1	Iowa	62.7
2	Maine	59.3
3	Idaho	57.6
4	Louisiana	57.2
5	Alaska	56.5
6	Rhode Island	56.1
7	Hawaii	55.6
8	Mississippi	54.7
9	California	54.7
10	Massachusetts	54.6
11	Ohio	54.5
12	Kansas	54.3
13	Missouri	52.9
14	Michigan	52.8
15	New Jersey	52.1
16	Wisconsin	52.0
17	Illinois	51.8
18	Montana	51.8
19	North Dakota	51.7
20	Maryland	51.6
21	Virginia	50.8
22	Nebraska	50.8
23	Connecticut	50.2
24	Delaware	50.1
25	Tennessee	50.0
26	Kentucky	49.5
27	Colorado	49.4
28	Wyoming	49.3
29	Utah	48.3
30	North Carolina	48.2
31	Arizona	47.0
32	Washington	46.4
33	Oregon	46.4
34	Georgia	45.9
35	Alabama	43.0
36	Indiana	43.0
37	Oklahoma	42.2
38	Nevada	40.9
39	South Dakota	40.6
40	Minnesota	40.2
41	Arkansas	39.8
42	Pennsylvania	39.2
43	Texas	38.4
44	New York	38.1
45	District of Columbia	37.4
46	New Mexico	37.2
47	South Carolina	35.2
48	West Virginia	35.1
49	Florida	34.9
	United States	47.1

TABLE 4.30A

Percentage of Infants Born to Teen Mothers Who Received Late or No Prenatal Care, All Races, 1986

Rank	State	Percent
1	Maine	5.1
2	Iowa	5.9
3	Rhode Island	6.6
4	Mississippi	7.4
5	New Hampshire	7.5
6	Utah	7.6
7	Wyoming	7.6
8	Ohio	7.6
9	Delaware	8.3
10	Nebraska	8.4
11	Massachusetts	8.6
12	Louisiana	8.8
13	Michigan	8.8
14	Kansas	9.0
15	Wisconsin	9.1
16	Kentucky	9.2
17	Hawaii	9.2
18	North Dakota	9.2
19	Virginia	9.3
20	Alaska	9.5
21	Maryland	10.1
22	North Carolina	10.3
23	Minnesota	10.4
24	Missouri	10.4
25	Tennessee	10.5
26	Vermont	10.6
27	Indiana	10.8
28	California	10.9
29	Montana	11.1
30	Illinois	11.1
31	Connecticut	11.2
32	Idaho	11.6
33	South Dakota	12.0
34	Georgia	12.2
35	Arkansas	12.4
36	Pennsylvania	12.4
37	Washington	12.7
38	Oklahoma	13.1
39	Colorado	13.1
40	Alabama	13.3
41	West Virginia	13.3
42	New Jersey	13.5
43	Nevada	13.8
44	Arizona	14.3
45	Oregon	14.4
46	South Carolina	16.4
47	Florida	17.1
48	District of Columbia	18.9
49	Texas	20.8
50	New York	21.2
51	New Mexico	22.4
	United States	12.7

TABLE 4.30B

Percentage of Infants Born to Teen Mothers Who Received Late or No Prenatal Care, White, 1986

Rank	State	Percent
1	Maine	5.2
2	Mississippi	5.7
3	Iowa	5.8
4	Rhode Island	6.1
5	Louisiana	6.4
6	Delaware	6.5
7	Ohio	6.6
8	Utah	6.8
9	South Dakota	7.3
10	New Hampshire	7.4
11	North Dakota	7.4
12	North Carolina	7.4
13	Wisconsin	7.5
14	Maryland	7.6
15	Michigan	7.6
16	Wyoming	7.6
17	Nebraska	8.0
18	Massachusetts	8.1
19	Virginia	8.1
20	Minnesota	8.3
21	Kentucky	8.6
22	Kansas	8.7
23	Pennsylvania	9.0
24	Alaska	9.2
25	Indiana	9.3
26	Montana	9.4
27	Tennessee	9.5
28	Missouri	9.6
29	Connecticut	9.7
30	Arkansas	10.0
31	Illinois	10.4
32	Vermont	10.6
33	Georgia	10.8
34	California	10.8
35	Oklahoma	11.1
36	Idaho	11.5
37	Alabama	11.5
38	Washington	11.8
39	Nevada	12.0
40	South Carolina	12.8
41	West Virginia	13.1
42	New Jersey	13.1
43	Colorado	13.3
44	Arizona	14.0
45	Oregon	14.2
46	Florida	15.4
47	New York	17.8
48	Texas	20.5
49	New Mexico	21.6
	United States	11.6

TABLE 4.30C

Percentage of Infants Born to Teen Mothers Who Received Late or No Prenatal Care, Black, 1986

Rank	State	Percent
1	Mississippi	8.4
2	Kansas	10.2
3	California	10.3
4	Delaware	10.4
5	Ohio	10.5
6	Louisiana	10.6
7	Virginia	10.8
8	Michigan	10.8
9	Colorado	10.9
10	Massachusetts	11.3
11	Illinois	11.9
12	Maryland	12.3
13	Tennessee	12.3
14	Missouri	12.3
15	Kentucky	12.5
16	Arizona	13.0
17	Georgia	13.7
18	North Carolina	13.9
19	Wisconsin	13.9
20	New Jersey	14.1
21	Connecticut	14.6
22	Alabama	15.1
23	Oregon	16.5
24	Arkansas	16.5
25	Indiana	17.1
26	West Virginia	18.5
27	District of Columbia	18.8
28	Nevada	19.1
29	South Carolina	19.4
30	Florida	19.4
31	Oklahoma	19.5
32	Minnesota	19.7
33	Pennsylvania	20.0
34	Washington	21.3
35	Texas	21.8
36	New York	26.6
	United States	15.0

TABLE 4.30D

Percentage of Infants Born to Teen Mothers Who Received Late or No Prenatal Care, Nonwhite, 1986

Rank	State	Percent
1	Mississippi	8.5
2	Alaska	9.9
3	Kansas	10.2
4	Hawaii	10.2
5	Delaware	10.3
6	Ohio	10.4
7	Nebraska	10.5
8	Louisiana	10.6
9	Virginia	10.9
10	Massachusetts	10.9
11	California	11.0
12	Michigan	11.0
13	Illinois	11.9
14	Colorado	12.1
15	Maryland	12.2
16	Missouri	12.3
17	Tennessee	12.3
18	Kentucky	12.6
19	Wisconsin	13.1
20	North Carolina	13.7
21	Georgia	13.7
22	New Jersey	13.9
23	Connecticut	14.3
24	North Dakota	15.0
25	Alabama	15.1
26	Arizona	15.6
27	Oregon	16.0
28	Montana	16.5
29	Arkansas	16.5
30	Indiana	17.0
31	Washington	17.3
32	Oklahoma	17.4
33	Utah	18.1
34	Nevada	18.3
35	West Virginia	18.6
36	District of Columbia	18.9
37	South Carolina	19.3
38	Florida	19.4
39	Minnesota	19.4
40	Pennsylvania	20.0
41	South Dakota	20.4
42	Texas	21.9
43	New Mexico	25.5
44	New York	26.5
	United States	15.0

TABLE 4.31A

Percentage of Infants Who Were Born to Unmarried Mothers, All Races, 1986

Rank	State	Percent
1	Utah	9.8
2	Idaho	11.8
3	North Dakota	12.9
4	New Hampshire	13.9
5	Wyoming	13.9
6	Iowa	15.0
7	Nebraska	15.5
8	Minnesota	16.3
9	Nevada	16.6
10	Vermont	16.7
11	Kansas	16.7
12	South Dakota	17.5
13	Texas	17.7
14	Montana	17.8
15	Colorado	18.0
16	Oklahoma	18.6
17	Connecticut	19.0
18	Maine	19.0
19	Massachusetts	19.3
20	Michigan	19.3
21	West Virginia	19.5
22	Wisconsin	19.6
23	Rhode Island	19.8
24	Washington	19.8
25	Kentucky	20.0
26	Hawaii	20.3
27	Oregon	20.6
28	Alaska	20.8
29	Indiana	21.0
30	Virginia	22.4
31	Missouri	22.5
32	New Jersey	22.9
33	Ohio	23.4
34	North Carolina	23.6
35	Arkansas	24.0
36	Pennsylvania	24.4
37	Tennessee	25.3
38	Arizona	25.6
39	Alabama	25.9
40	California	26.5
41	Florida	26.7
42	Delaware	27.0
43	Illinois	27.1
44	Georgia	27.2
45	South Carolina	27.6
46	New Mexico	27.9
47	New York	29.4
48	Louisiana	30.2
49	Maryland	30.5
50	Mississippi	34.0
51	District of Columbia	57.7
	United States	23.4

TABLE 4.31B

Percentage of Infants Who Were Born to Unmarried Mothers, White, 1986

Rank	State	Percent
1	Alabama	8.6
2	Utah	9.1
3	Mississippi	9.2
4	North Carolina	9.7
5	North Dakota	9.7
6	South Dakota	10.1
7	Georgia	10.4
8	South Carolina	10.5
9	Louisiana	11.0
10	Michigan	11.3
11	Idaho	11.5
12	Virginia	11.7
13	Nebraska	11.9
14	Hawaii	12.0
15	Arkansas	12.0
16	Nevada	12.2
17	Texas	12.8
18	Kansas	12.9
19	Montana	12.9
20	Alaska	12.9
21	Tennessee	13.0
22	Wyoming	13.0
23	Oklahoma	13.0
24	Minnesota	13.4
25	Iowa	13.5
26	New Jersey	13.6
27	Missouri	13.7
28	Connecticut	13.8
29	New Hampshire	13.9
30	Delaware	14.2
31	District of Columbia	14.3
32	Wisconsin	14.4
33	Illinois	14.5
34	Florida	15.1
35	Indiana	15.4
36	Kentucky	15.6
37	Ohio	15.7
38	Maryland	15.8
39	Pennsylvania	15.9
40	Massachusetts	16.3
41	Colorado	16.4
42	Rhode Island	16.6
43	Vermont	16.7
44	Washington	17.9
45	West Virginia	18.1
46	Maine	18.7
47	Oregon	19.7
48	New York	19.9
49	Arizona	21.1
50	New Mexico	23.3
51	California	24.4
	United States	15.7

TABLE 4.31C

Percentage of Infants Who Were Born to Unmarried Mothers, Black, 1986

Rank	State	Percent
1	Hawaii	12.9
2	Alaska	30.0
3	New Mexico	39.4
4	Utah	42.4
5	Washington	44.2
6	Colorado	45.1
7	Wyoming	45.5
8	Texas	49.1
9	Arizona	53.6
10	Massachusetts	54.0
11	Oklahoma	54.5
12	Kansas	54.8
13	West Virginia	54.8
14	South Carolina	54.9
15	Connecticut	55.1
16	Oregon	55.5
17	Nevada	56.0
18	Virginia	56.7
19	North Carolina	56.7
20	Michigan	57.6
21	California	58.0
22	Georgia	59.0
23	Alabama	59.1
24	Louisiana	59.7
25	Rhode Island	59.9
26	Kentucky	62.3
27	Mississippi	62.5
28	New Jersey	62.6
29	Arkansas	62.9
30	New York	63.0
31	Maryland	63.9
32	Florida	63.9
33	Minnesota	64.3
34	Iowa	64.6
35	Nebraska	66.2
36	Tennessee	66.8
37	Delaware	67.7
38	Ohio	68.1
39	District of Columbia	68.3
40	Indiana	68.6
41	Missouri	69.7
42	Illinois	72.4
43	Wisconsin	73.7
44	Pennsylvania	74.1
	United States	61.2

TABLE 4.31D

Percentage of Infants Who Were Born to Unmarried Mothers, Nonwhite, 1986

Rank	State	Percent
1	New Hampshire	13.4
2	Idaho	21.3
3	Utah	22.5
4	Hawaii	23.0
5	Wyoming	30.5
6	Maine	30.7
7	Oregon	31.9
8	Washington	33.1
9	California	34.1
10	Colorado	34.2
11	Nevada	36.3
12	Oklahoma	38.3
13	Alaska	38.4
14	North Dakota	42.1
15	Massachusetts	42.7
16	Texas	43.1
17	Kansas	45.3
18	Rhode Island	45.9
19	Iowa	46.6
20	Minnesota	48.7
21	Arizona	49.3
22	New Mexico	49.5
23	Connecticut	49.9
24	West Virginia	49.9
25	Virginia	51.3
26	Montana	51.7
27	Michigan	53.2
28	South Dakota	53.3
29	South Carolina	53.7
30	North Carolina	53.8
31	New Jersey	54.7
32	New York	55.9
33	Georgia	57.1
34	Louisiana	57.4
35	Nebraska	57.8
36	Alabama	57.8
37	Kentucky	58.4
38	Maryland	59.1
39	Wisconsin	60.3
40	Arkansas	60.5
41	Florida	61.0
42	Mississippi	61.6
43	Ohio	64.0
44	Indiana	64.4
45	Delaware	64.5
46	Tennessee	64.7
47	Missouri	65.2
48	District of Columbia	66.3
49	Illinois	67.6
50	Pennsylvania	68.8
	United States	52.4

TABLE 4.32A

Percentage of Infants Born to Teens Who Were Unmarried Mothers, All Races, 1986

Rank	State	Percent
1	Utah	39.7
2	Idaho	41.0
3	Kentucky	43.7
4	Texas	44.5
5	West Virginia	45.8
6	Wyoming	46.5
7	Oklahoma	46.6
8	Nevada	47.2
9	Arkansas	52.5
10	Tennessee	53.2
11	Kansas	53.8
12	North Dakota	56.1
13	South Dakota	57.7
14	Alaska	58.0
15	Alabama	58.2
16	North Carolina	58.5
17	Michigan	58.7
18	Montana	58.8
19	Indiana	59.2
20	Georgia	59.4
21	Iowa	60.0
22	Colorado	60.1
23	Oregon	60.2
24	New Mexico	60.3
25	Missouri	60.4
26	New Hampshire	61.3
27	Virginia	61.5
28	Maine	61.6
29	Washington	61.7
30	California	61.7
31	Arizona	61.9
32	Connecticut	62.4
33	Nebraska	62.5
34	Florida	63.4
35	Vermont	63.5
36	Hawaii	63.7
37	Ohio	64.6
38	South Carolina	64.7
39	Louisiana	65.4
40	Mississippi	67.8
41	Rhode Island	68.1
42	Wisconsin	70.6
43	Delaware	70.9
44	Minnesota	71.0
45	Pennsylvania	71.2
46	Massachusetts	73.7
47	Illinois	74.6
48	New York	76.5
49	Maryland	77.5
50	New Jersey	78.4
51	District of Columbia	92.8
	United States	61.5

TABLE 4.32B

Percentage of Infants Born to Teens Who Were Unmarried Mothers, White, 1986

Rank	State	Percent
1	Alabama	27.1
2	Mississippi	27.5
3	Georgia	29.8
4	Arkansas	31.1
5	North Carolina	32.5
6	Tennessee	32.6
7	Texas	34.3
8	South Carolina	35.1
9	Louisiana	35.5
10	Kentucky	36.3
11	Hawaii	36.5
12	Nevada	37.6
13	Oklahoma	38.6
14	Utah	38.6
15	Virginia	39.6
16	Idaho	40.8
17	West Virginia	43.6
18	Florida	43.8
19	Michigan	45.0
20	Alaska	45.1
21	South Dakota	46.0
22	Wyoming	46.0
23	Missouri	46.0
24	Kansas	47.0
25	North Dakota	49.2
26	Indiana	49.9
27	Delaware	52.4
28	Montana	52.6
29	Ohio	53.6
30	Connecticut	54.1
31	New Mexico	55.1
32	Nebraska	56.4
33	Arizona	56.4
34	District of Columbia	56.8
35	Illinois	56.8
36	Maryland	57.2
37	Iowa	57.3
38	California	57.4
39	Colorado	58.4
40	Oregon	58.9
41	Washington	59.0
42	Pennsylvania	60.1
43	New Hampshire	61.2
44	Maine	61.7
45	Wisconsin	63.2
46	Vermont	63.4
47	Rhode Island	64.9
48	New Jersey	65.0
49	New York	66.7
50	Minnesota	67.6
51	Massachusetts	70.7
	United States	48.6

TABLE 4.32C

Percentage of Infants Born to Teens Who Were Unmarried Mothers, Black, 1986

Rank	State	Percent
1	Alaska	66.2
2	Utah	73.1
3	New Mexico	78.2
4	Colorado	79.2
5	Washington	79.6
6	Connecticut	80.0
7	Texas	82.0
8	Nevada	84.3
9	Arizona	84.8
10	Michigan	84.8
11	California	86.0
12	Kansas	86.3
13	Oklahoma	86.8
14	West Virginia	88.3
15	Oregon	88.5
16	Louisiana	89.3
17	South Carolina	89.3
18	Kentucky	90.0
19	Arkansas	90.2
20	Virginia	90.2
21	Massachusetts	90.5
22	North Carolina	90.7
23	Florida	90.8
24	Alabama	90.8
25	Georgia	91.0
26	Mississippi	91.0
27	Rhode Island	91.4
28	New York	91.9
29	Delaware	92.3
30	Nebraska	93.0
31	Tennessee	93.0
32	New Jersey	93.6
33	Iowa	94.0
34	Ohio	94.0
35	Missouri	94.2
36	Wisconsin	94.3
37	Indiana	94.5
38	Pennsylvania	95.1
39	District of Columbia	95.2
40	Maryland	95.2
41	Minnesota	95.4
42	Illinois	95.7
	United States	90.4

TABLE 4.32D

Percentage of Infants Born to Teens Who Were Unmarried Mothers, Nonwhite, 1986

Rank	State	Percent
1	Idaho	44.8
2	Utah	53.1
3	Wyoming	53.6
4	Maine	58.2
5	Oklahoma	64.4
6	Hawaii	69.1
7	Nevada	71.6
8	Colorado	71.7
9	Oregon	72.5
10	Alaska	73.7
11	Washington	74.9
12	California	75.7
13	North Dakota	77.6
14	South Dakota	78.3
15	Montana	78.4
16	Connecticut	78.8
17	Kansas	79.8
18	Texas	80.3
19	New Mexico	82.0
20	Arizona	82.1
21	Rhode Island	82.7
22	Michigan	83.4
23	Minnesota	84.6
24	Iowa	85.8
25	Massachusetts	86.7
26	West Virginia	88.0
27	Louisiana	88.2
28	North Carolina	88.7
29	Wisconsin	88.7
30	South Carolina	88.9
31	Arkansas	89.0
32	Kentucky	89.4
33	Virginia	89.4
34	Florida	90.0
35	Georgia	90.2
36	Nebraska	90.4
37	Alabama	90.5
38	Mississippi	90.8
39	New York	91.0
40	Delaware	91 9
41	Tennessee	92.5
42	Missouri	92.6
43	New Jersey	93.0
44	Ohio	93.0
45	Indiana	93.8
46	District of Columbia	94.4
47	Pennsylvania	94.5
48	Maryland	94.6
49	Illinois	95.1
	United States	87.4

TABLE 4.33A

Percentage of All Unmarried Mothers Who Were Teens, All Races, 1986

Rank	State	Percent
1	Alaska	24.2
2	New York	25.3
3	California	25.5
4	District of Columbia	27.4
5	Connecticut	28.9
6	Maryland	29.8
7	Hawaii	30.0
8	Oregon	31.7
9	Massachusetts	31.8
10	Minnesota	31.9
11	South Dakota	32.1
12	New Jersey	32.3
13	Washington	32.6
14	Florida	32.6
15	Pennsylvania	32.9
16	Virginia	33.0
17	New Mexico	33.1
18	Arizona	33.3
19	Montana	33.3
20	Nevada	33.9
21	New Hampshire	34.0
22	Colorado	34.2
23	Illinois	34.4
24	Delaware	34.6
25	North Dakota	34.8
26	Vermont	35.1
27	Rhode Island	35.5
28	Wisconsin	35.6
29	Nebraska	35.7
30	Tennessee	35.8
31	Wyoming	35.9
32	Missouri	36.1
33	Louisiana	36.4
34	Iowa	36.8
35	Kansas	36.8
36	Ohio	36.9
37	Georgia	37.2
38	Michigan	37.2
39	Idaho	37.5
40	Maine	37.7
41	Utah	37.8
42	Kentucky	38.2
43	Texas	38.3
44	South Carolina	38.8
45	Oklahoma	39.1
46	Alabama	39.2
47	North Carolina	39.4
48	Indiana	39.5
49	West Virginia	40.2
50	Mississippi	41.0
51	Arkansas	41.7
	United States	33.0

TABLE 4.33B

Percentage of All Unmarried Mothers Who Were Teens, White, 1986

Rank	State	Percent
1	District of Columbia	17.8
2	Hawaii	19.4
3	Alaska	24.2
4	California	25.0
5	New York	26.2
6	Connecticut	26.7
7	Maryland	29.4
8	New Jersey	30.1
9	Florida	30.9
10	Virginia	31.3
11	Minnesota	31.9
12	Oregon	32.0
13	Nevada	32.5
14	Washington	32.9
15	Massachusetts	33.1
16	New Hampshire	33.9
17	North Dakota	34.1
18	South Dakota	34.2
19	Illinois	34.3
20	Delaware	34.4
21	Arizona	34.5
22	Pennsylvania	34.5
23	Wisconsin	34.8
24	Colorado	34.9
25	Vermont	35.0
26	New Mexico	35.5
27	Montana	35.5
28	Tennessee	36.7
29	Iowa	37.0
30	Rhode Island	37.1
31	Wyoming	37.1
32	Nebraska	37.6
33	Missouri	37.6
34	Kansas	37.6
35	Texas	37.7
36	Idaho	38.0
37	Maine	38.0
38	Georgia	38.9
39	Kentucky	39.0
40	Michigan	39.0
41	Utah	39.1
42	Ohio	39.2
43	Louisiana	40.0
44	Indiana	40.5
45	Oklahoma	41.0
46	West Virginia	41.0
47	Arkansas	41.2
48	South Carolina	41.5
49	North Carolina	41.8
50	Mississippi	42.3
51	Alabama	43.0
	United States	32.8

TABLE 4.33C

Percentage of All Unmarried Mothers Who Were Teens, Black, 1986

Rank	State	Percent
1	Alaska	23.4
2	New York	24.6
3	California	27.1
4	Utah	27.7
5	District of Columbia	28.0
6	Massachusetts	28.2
7	Rhode Island	29.7
8	Maryland	30.5
9	Oregon	30.6
10	Washington	30.8
11	Colorado	30.9
12	Pennsylvania	31.1
13	Minnesota	31.4
14	New Mexico	31.7
15	Nebraska	31.8
16	Connecticut	33.2
17	Arizona	33.7
18	Ohio	33.8
19	Florida	34.0
20	West Virginia	34.1
21	Virginia	34.2
22	New Jersey	34.2
23	Illinois	34.6
24	Missouri	34.7
25	Delaware	34.9
26	Tennessee	35.1
27	Kansas	35.3
28	Louisiana	35.5
29	Michigan	35.5
30	Iowa	35.9
31	Kentucky	36.4
32	Georgia	36.6
33	Oklahoma	37.1
34	Wisconsin	37.2
35	Nevada	37.4
36	Indiana	37.8
37	South Carolina	38.1
38	Alabama	38.2
39	North Carolina	38.5
40	Texas	39.4
41	Mississippi	40.8
42	Arkansas	42.1
	United States	33.7

TABLE 4.33D

Percentage of All Unmarried Mothers Who Were Teens, Nonwhite, 1986

Rank	State	Percent
1	Alaska	24.3
2	New York	24.4
3	Wyoming	26.4
4	California	26.8
5	District of Columbia	27.8
6	New Mexico	27.9
7	Massachusetts	28.1
8	Maine	28.6
9	Utah	29.0
10	Montana	29.4
11	Oregon	29.7
12	Maryland	30.0
13	South Dakota	30.1
14	Arizona	30.4
15	Colorado	30.5
16	Rhode Island	30.7
17	Idaho	30.7
18	Pennsylvania	31.1
19	Nebraska	31.2
20	Washington	31.3
21	Minnesota	31.6
22	Hawaii	31.8
23	Connecticut	32.5
24	Ohio	33.8
25	Florida	33.9
26	Virginia	34.0
27	New Jersey	34.1
28	West Virginia	34.4
29	Illinois	34.5
30	Missouri	34.6
31	Delaware	34.8
32	Tennessee	35.1
33	Kansas	35.2
34	Louisiana	35.4
35	Iowa	35.5
36	Michigan	35.6
37	Nevada	36.1
38	Kentucky	36.3
39	North Dakota	36.5
40	Georgia	36.6
41	Oklahoma	36.9
42	Wisconsin	37.0
43	Indiana	37.8
44	South Carolina	38.1
45	Alabama	38.2
46	North Carolina	38.5
47	Texas	39.2
48	Mississippi	40.8
49	Arkansas	42.0
	United States	33.3

TABLE 4.34A

AFDC Maximum Payment Levels[1] for Families With No Other Income as a Percent of the Federal Poverty Level, 1988

Rank	State	Percent
1	New York	82.4
2	California	82.1
3	Vermont	77.9
4	Alaska	77.2
5	Connecticut	77.2
6	Massachusetts	66.7
7	Minnesota	65.9
8	Rhode Island	64.0
9	Wisconsin	64.0
10	New Hampshire	61.4
11	Washington	60.9
12	Hawaii	59.9
13	Michigan	57.7
14	Kansas	52.9
15	New Jersey	52.5
16	Maine	51.5
17	Oregon	51.0
18	Pennsylvania	49.8
19	Iowa	48.8
20	District of Columbia	46.9
21	Maryland	46.7
22	Utah	46.6
23	North Dakota	45.9
24	South Dakota	45.3
25	Wyoming	44.6
26	Montana	44.5
27	Colorado	44.1
28	Virginia	43.8
29	Nebraska	42.7
30	Illinois	42.4
31	Nevada	40.9
32	Delaware	39.5
33	Oklahoma	38.4
34	Ohio	38.3
35	Idaho	37.6
36	Arizona	36.3
37	Indiana	35.7
38	Missouri	34.9
39	Florida	34.1
40	Georgia	33.4
41	North Carolina	32.9
42	New Mexico	32.7
43	West Virginia	30.8
44	Kentucky	27.0
45	Arkansas	25.3
46	South Carolina	24.9
47	Louisiana	23.5
48	Texas	22.8
49	Tennessee	21.4
50	Mississippi	14.9
51	Alabama	14.6

[1]All AFDC recipients are entitled to Medicaid coverage.

TABLE 4.34B

States' AFDC Standard of Need as a Percent of the Federal Poverty Level, 1988

Rank	State	Percent
1	Vermont	115.2
2	Washington	108.0
3	Florida	99.9
4	Illinois	88.3
5	District of Columbia	88.2
6	Ohio	88.2
7	Arkansas	87.3
8	New York	82.4
9	California	82.1
10	Wisconsin	80.1
11	Louisiana	78.3
12	Alaska	77.2
13	Connecticut	77.2
14	Arizona	76.9
15	Pennsylvania	76.0
16	Michigan	74.8
17	Texas	71.1
18	Maine	71.0
19	Idaho	68.6
20	Nevada	68.1
21	Massachusetts	66.7
22	Minnesota	65.9
23	North Carolina	65.9
24	Maryland	64.6
25	Rhode Island	64.0
26	Utah	62.2
27	Iowa	61.5
28	West Virginia	61.5
29	New Hampshire	61.4
30	Hawaii	59.9
31	Oklahoma	58.3
32	Montana	53.7
33	Kansas	52.9
34	New Jersey	52.5
35	Colorado	52.1
36	Oregon	51.0
37	South Carolina	49.9
38	Virginia	48.7
39	Alabama	47.6
40	Georgia	46.6
41	North Dakota	45.9
42	Mississippi	45.6
43	South Dakota	45.3
44	Tennessee	45.2
45	Nebraska	45.1
46	Wyoming	44.6
47	Indiana	39.6
48	Delaware	39.5
49	Missouri	38.6
50	New Mexico	32.7
51	Kentucky	27.0

TABLE 4.34C

AFDC Payment Level as a Percent of the AFDC Standard of Need, 1988

Rank	State	Percent
1	Alaska	100.0
1	California	100.0
1	Connecticut	100.0
1	Delaware	100.0
1	Hawaii	100.0
1	Kansas	100.0
1	Kentucky	100.0
1	Massachusetts	100.0
1	Minnesota	100.0
1	New Hampshire	100.0
1	New Jersey	100.0
1	New Mexico	100.0
1	New York	100.0
1	North Dakota	100.0
1	Oregon	100.0
1	Rhode Island	100.0
1	South Dakota	100.0
1	Wyoming	100.0
19	Nebraska	94.8
20	Missouri	90.4
21	Virginia	90.1
22	Indiana	90.0
23	Colorado	84.6
24	Montana	82.7
25	Wisconsin	79.9
26	Iowa	79.3
27	Michigan	77.2
28	Utah	74.9
29	Maine	72.6
30	Maryland	72.2
31	Georgia	71.8
32	Vermont	67.6
33	Oklahoma	65.8
34	Pennsylvania	65.5
35	Nevada	60.0
36	Washington	56.4
37	Idaho	54.9
38	District of Columbia	53.2
39	West Virginia	50.1
40	North Carolina	50.0
41	South Carolina	49.9
42	Illinois	48.0
43	Tennessee	47.4
44	Arizona	47.2
45	Ohio	43.4
46	Florida	34.1
47	Mississippi	32.6
48	Texas	32.1
49	Alabama	30.7
50	Louisiana	30.1
51	Arkansas	28.9

TABLE 4.34D

Percentage of Eligible Population Served by WIC Program

Rank	State	Percent
1	Vermont	78.4
2	Connecticut	71.3
3	Wyoming	69.7
4	Mississippi	66.7
5	District of Columbia	66.3
6	Nevada	64.7
7	Michigan	62.0
8	South Carolina	60.7
9	Ohio	60.3
10	Georgia	59.5
11	Wisconsin	58.1
12	Louisiana	57.9
13	Colorado	57.2
14	New Hampshire	57.2
15	Rhode Island	57.2
16	North Dakota	55.5
17	Arizona	54.9
18	Tennessee	53.1
19	Minnesota	52.8
20	North Carolina	52.5
21	Illinois	52.3
22	Oregon	51.2
23	Delaware	50.9
24	New Mexico	50.5
25	Kentucky	49.6
26	Pennsylvania	49.3
27	West Virginia	49.0
28	Iowa	48.9
29	Maryland	47.4
30	Virginia	47.0
31	Florida	46.7
32	South Dakota	46.7
33	Alabama	46.5
34	New York	46.5
35	Massachusetts	45.1
36	Arkansas	44.6
37	Montana	44.6
38	Maine	44.5
39	Nebraska	44.5
40	Kansas	44.4
41	Indiana	43.7
42	Alaska	43.3
43	Texas	43.1
44	Missouri	42.2
45	California	42.0
46	Oklahoma	41.9
47	Utah	41.5
48	Washington	40.1
49	New Jersey	37.9
50	Idaho	36.4
51	Hawaii	30.9
	United States	49.2

TABLE 4.35A

Infant Mortality Rates for Cities of 500,000+ Population, All Races, 1980-1986

City	1980	1981	1982	1983	1984	1985	1986
Baltimore	20.0	17.0	16.7	17.5	16.8	17.0	16.2
Boston	13.0	12.0	15.8	11.5	11.7	15.6	13.9
Chicago	20.8	18.9	18.7	17.7	16.5	16.6	16.6
Cleveland	23.4	21.9	17.6	16.5	16.8	14.9	16.3
Columbus	12.0	13.2	15.7	12.5	9.6	12.1	12.3
Dallas	13.7	15.2	11.1	12.4	11.7	11.1	11.8
Detroit	21.2	21.9	21.8	19.8	20.9	19.9	20.3
District of Columbia	25.0	25.1	21.2	19.3	21.0	20.8	21.1
Houston	13.3	13.8	11.8	13.0	11.9	11.2	11.3
Indianapolis	14.4	14.7	14.0	14.9	13.3	14.3	14.2
Jacksonville	14.6	15.7	14.5	12.8	11.9	14.5	13.1
Los Angeles	12.4	11.3	11.7	12.8	11.0	11.2	10.1
Memphis	17.7	18.3	15.9	17.5	14.8	19.0	15.8
Milwaukee	13.5	12.9	12.1	12.7	14.2	13.3	12.2
New Orleans	20.2	17.1	16.5	17.6	16.0	16.4	15.5
New York City	15.0	14.6	14.4	13.6	13.0	12.8	12.4
Philadelphia	19.3	17.6	17.6	17.0	15.5	17.4	15.5
Phoenix	12.5	12.4	10.0	13.7	9.9	9.9	11.0
San Antonio	12.9	12.4	13.0	10.7	12.8	11.1	10.2
San Diego	12.0	9.4	10.5	10.4	9.7	9.3	9.4
San Francisco	11.1	10.5	11.4	11.3	8.8	8.6	8.8
San Jose	10.7	9.7	9.1	10.1	7.9	8.2	7.3

TABLE 4.35B

Infant Mortality Rates for Cities of 500,000+ Population, White, 1980-1986

City	1980	1981	1982	1983	1984	1985	1986
Baltimore	17.7	10.7	11.9	11.1	13.2	11.8	12.6
Boston	10.8	9.9	11.6	8.9	10.4	10.1	8.4
Chicago	15.0	13.4	12.3	11.2	11.1	11.4	10.7
Cleveland	16.5	11.6	14.7	14.5	10.2	11.2	11.9
Columbus	10.1	11.8	13.0	11.0	8.3	11.9	11.9
Dallas	11.1	10.7	8.9	10.6	9.7	8.0	9.8
Detroit	11.5	12.0	9.4	11.4	13.8	13.1	9.7
District of Columbia	—	—	—	—	—	—	—
Houston	12.2	12.4	10.7	12.0	10.6	10.0	9.2
Indianapolis	11.8	13.6	10.9	12.4	9.4	11.1	10.7
Jacksonville	11.2	12.7	9.9	11.7	9.5	11.8	10.0
Los Angeles	10.2	10.2	10.0	10.8	9.2	9.5	8.0
Memphis	12.5	8.9	9.8	9.4	7.8	12.1	10.7
Milwaukee	11.0	11.7	8.5	10.6	11.7	10.6	9.0
New Orleans	11.8	11.7	—	—	10.8	13.8	12.5
New York City	13.5	12.2	12.7	11.8	11.7	11.9	11.2
Philadelphia	15.8	15.1	14.1	12.6	9.2	12.9	9.6
Phoenix	12.3	11.2	10.1	12.6	9.4	9.6	10.3
San Antonio	11.9	12.3	12.3	10.7	12.5	11.3	9.6
San Diego	10.8	8.9	8.6	9.8	8.8	8.7	8.7
San Francisco	12.3	9.2	12.4	13.2	8.5	8.0	10.1
San Jose	11.1	10.0	9.0	10.3	8.3	8.5	7.3

TABLE 4.35C

Infant Mortality Rates for Cities of 500,000+ Population, Black, 1980-1986

City	1980	1981	1982	1983	1984	1985	1986
Baltimore	21.5	20.3	19.5	20.9	18.7	19.9	18.2
Boston	20.1	16.4	24.1	16.4	14.6	25.3	23.0
Chicago	26.9	25.2	25.8	24.9	22.6	22.5	22.9
Cleveland	30.2	32.5	20.9	18.2	23.2	18.5	20.3
Columbus	17.0	17.4	22.5	17.7	13.5	13.3	13.8
Dallas	18.3	23.1	15.4	16.5	15.7	17.6	16.0
Detroit	25.3	26.2	26.9	23.1	23.7	22.3	24.0
District of Columbia	26.7	26.7	24.1	21.3	24.3	23.7	24.0
Houston	16.6	18.2	15.5	17.1	16.7	15.1	17.2
Indianapolis	22.0	18.0	23.2	22.0	24.5	23.9	24.6
Jacksonville	21.9	21.7	23.0	15.1	16.8	20.0	19.7
Los Angeles	22.5	16.7	20.2	22.2	19.9	20.1	21.2
Memphis	21.2	24.3	20.0	23.1	19.3	23.3	18.4
Milwaukee	18.8	16.1	19.7	16.6	18.5	18.0	17.2
New Orleans	23.9	19.8	19.5	21.0	18.5	17.4	16.8
New York City	19.1	19.4	17.8	17.3	15.6	15.1	15.5
Philadelphia	22.9	20.9	21.6	21.9	22.3	22.4	21.8
Phoenix	—	28.6	—	—	—	—	—
San Antonio	27.0	—	—	—	—	—	—
San Diego	23.2	—	23.1	20.2	18.1	15.5	14.3
San Francisco	14.7	18.0	—	—	—	—	—
San Jose	—	—	—	—	—	—	—

TABLE 4.35D

Infant Mortality Rates for Cities of 500,000+ Population, Nonwhite, 1980-1986

City	1980	1981	1982	1983	1984	1985	1986
Baltimore	21.2	20.2	19.1	20.7	18.5	19.5	17.8
Boston	18.8	14.8	21.2	15.2	13.4	22.7	20.7
Chicago	25.9	23.9	24.7	23.7	21.5	21.6	22.2
Cleveland	30.0	32.1	20.5	18.3	23.0	18.1	20.3
Columbus	16.6	16.4	22.2	16.1	12.8	12.5	13.0
Dallas	17.8	22.6	14.8	15.4	15.2	16.7	15.3
Detroit	25.1	26.0	26.7	22.9	23.3	22.2	23.6
District of Columbia	26.3	26.6	24.3	21.0	24.1	22.9	22.6
Houston	15.6	16.7	14.2	15.2	14.6	13.7	15.7
Indianapolis	21.3	17.5	22.3	21.3	23.6	23.0	24.0
Jacksonville	21.2	21.4	22.9	14.9	16.3	19.5	19.0
Los Angeles	18.8	14.3	16.4	17.9	15.6	15.8	15.9
Memphis	20.9	24.1	19.8	22.7	19.2	23.0	18.6
Milwaukee	18.0	14.9	18.6	16.0	18.1	17.1	16.2
New Orleans	23.4	19.1	19.6	20.5	17.9	17.2	16.4
New York City	17.0	18.0	16.7	16.1	14.6	14.0	14.0
Philadelphia	22.7	20.0	21.0	21.3	21.8	21.5	20.7
Phoenix	—	22.1	—	22.4	—	—	16.0
San Antonio	23.8	—	—	—	—	—	—
San Diego	15.6	10.7	15.3	11.7	11.9	11.0	11.1
San Francisco	10.0	11.7	10.6	9.6	9.0	9.2	7.6
San Jose	—	—	9.5	—	—	7.6	—

TABLE 4.36A

Infant Mortality for Cities of 500,000+ Population, All Races, 1986

Rank	State	Rate
1	San Jose	7.3
2	San Francisco	8.8
3	San Diego	9.4
4	Los Angeles	10.1
5	San Antonio	10.2
6	Phoenix	11.0
7	Houston	11.3
8	Dallas	11.8
9	Milwaukee	12.2
10	Columbus	12.3
11	New York City	12.4
12	Jacksonville	13.1
13	Boston	13.9
14	Indianapolis	14.2
15	New Orleans	15.5
16	Philadelphia	15.5
17	Memphis	15.8
18	Baltimore	16.2
19	Cleveland	16.3
20	Chicago	16.6
21	Detroit	20.3
22	District of Columbia	21.1

TABLE 4.36B

Infant Mortality for Cities of 500,000+ Population, White, 1986

Rank	City	Rate
1	San Jose	7.3
2	Los Angeles	8.0
3	Boston	8.4
4	San Diego	8.7
5	Milwaukee	9.0
6	Houston	9.2
7	San Antonio	9.6
8	Philadelphia	9.6
9	Detroit	9.7
10	Dallas	9.8
11	Jacksonville	10.0
12	San Francisco	10.1
13	Phoenix	10.3
14	Memphis	10.7
15	Indianapolis	10.7
16	Chicago	10.7
17	New York City	11.2
18	Cleveland	11.9
19	Columbus	11.9
20	New Orleans	12.5
21	Baltimore	12.6

TABLE 4.36C

Infant Mortality for Cities of 500,000+ Population, Black, 1986

Rank	City	Rate
1	Columbus	13.8
2	San Diego	14.3
3	New York City	15.5
4	Dallas	16.0
5	New Orleans	16.8
6	Milwaukee	17.2
7	Houston	17.2
8	Baltimore	18.2
9	Memphis	18.4
10	Jacksonville	19.7
11	Cleveland	20.3
12	Los Angeles	21.2
13	Philadelphia	21.8
14	Chicago	22.9
15	Boston	23.0
16	Detroit	24.0
17	District of Columbia	24.0
18	Indianapolis	24.6

TABLE 4.36D

Infant Mortality for Cities of 500,000+ Population, Nonwhite, 1986

Rank	City	Rate
1	San Francisco	7.6
2	San Diego	11.1
3	Columbus	13.0
4	New York City	14.0
5	Dallas	15.3
6	Houston	15.7
7	Los Angeles	15.9
8	Phoenix	16.0
9	Milwaukee	16.2
10	New Orleans	16.4
11	Baltimore	17.8
12	Memphis	18.6
13	Jacksonville	19.0
14	Cleveland	20.3
15	Philadelphia	20.7
16	Boston	20.7
17	Chicago	22.2
18	District of Columbia	22.6
19	Detroit	23.6
20	Indianapolis	24.0

Part Five:

Technical Notes

National, State, and City Natality and Mortality Data

Throughout this book certain natality and mortality data for the nation, states, and cities are used. The data appear on a variety of tables throughout the book, including the national fact sheet, ranking tables, and trend tables, and form the basis for CDF's projections of the nation's progress toward meeting the Surgeon General's 1990 Objectives for the Nation in the area of pregnancy and infant health.

All of the natality and mortality data appearing in this book are from published and unpublished reports of the National Center for Health Statistics (NCHS). These data are provided to NCHS through the Vital Statistics Cooperative Program, through which states report birth and death certificate information. Readers may obtain further details about states' participation in this program from NCHS, U.S. Department of Health and Human Services (3700 East-West Highway, Hyattsville, MD 20782).

Rankings, rates of progress, and other data analyses were conducted by CDF. In calculating rates and percentages, data were excluded if the total number of events was fewer than thirty. The only exception to this rule is in the case of the total number of births to women younger than twenty and to women younger than fifteen. These numbers are found on ranked tables in Part One and Part Four. Here we chose to present the data, even if the number of events was fewer than thirty, to give a fuller picture of teenage childbearing patterns.

The availability of city-level data is limited. NCHS does not routinely publish these data, and some statistics are unavailable even in unpublished form. City-to-city comparisons based on other data sources generally are not considered reliable. NCHS infant mortality data for the nation's largest cities (with populations of 500,000 or more) have been used in this book.

Perinatal Mortality

This is the first edition of *The Health of America's Children: Maternal and Child Health Data Book* to include information on perinatal mortality. In Tables 1.2 and 4.4 both Perinatal Definitions I and II (but not III) are used. The World Health Organization and the Public Health Conference on Records and Statistics have developed these definitions to capture different information and, therefore, each tells a slightly different story.

Perinatal Definition I, the most restrictive of the three, includes only fetal deaths occurring at twenty-eight weeks or more gestation and infant deaths prior to seven days after birth. Perinatal Definition II is the most inclusive, including fetal deaths of twenty weeks or more and deaths of infants younger than twenty-eight days of age. (The third definition includes fetal deaths of twenty weeks gestation or more and infant death less than seven days after birth.) NCHS and others usually use Definition I, but I and II are included here for purposes of comparison.

Unlike infant mortality, perinatal mortality is commonly expressed as both a rate and a ratio. The perinatal mortality rate definition is the number of perinatal deaths per 1,000 live births and fetal deaths. The perinatal mortality ratio is the number of perinatal deaths per 1,000 live births. The use of the word

"ratio" is to distinguish the latter figure from the former. Because the ratio uses the same denominator as infant mortality, it was selected for comparison purposes.

Maternal Mortality

Maternal mortality data are from NCHS. Data prior to 1978 should be used with some caution, because reporting was not based on a uniform definition of maternal mortality until the enactment of the Revision of the U.S. Model Vital Statistics Act of 1978. However, because disparities in definition were likely to be proportionally similar from year to year, the general trends from 1940 to 1978 are considered reliable.

Child Health Status and Utilization

The Health of America's Children contains findings on the health status and health care utilization patterns of children. The data used in this volume are extracted from various NCHS publications based on the National Health Interview Survey (NHIS). NHIS is an ongoing nationwide household survey based on a probability sample of the civilian noninstitutionalized population. A subset of results is published each year by NCHS in "Current Estimates from the National Health Interview Survey." In addition, special tabulations are published for particular subjects of interest, such as dental health and the use of preventive health care procedures. Data for this book are drawn from NCHS, "Current Estimates from The National Health Interview Survey, United States, 1986," *Vital and Health Statistics*, Vol. 10 No. 164, (DHHS Publication No. (PHS) 87-1592) (October 1987); NCHS, "Use of Dental Services and Dental Health, United States, 1986," *Vital and Health Statistics*, Vol. 10 No. 165, (DHHS Publication No. (PHS) 88-1593) (October 1988); and NCHS, "Use of Selected Preventive Care Procedures, United States, 1982," *Vital and Health Statistics*, Vol. 10 No. 157, (DHHS Publication No. (PHS) 86-1585) (September 1986).

Adequacy of Prenatal Care

Adequacy of prenatal care data presented in this book are based on a modified version of the Kessner Index. In 1963, Dr. David Kessner and his colleagues developed this index as part of their landmark study for the Institute of Medicine entitled *Infant Death: An Analysis by Maternal Risk and Health Care*. While the more common "early/late or no prenatal care" method measures the timing of entry into care based on the month of pregnancy in which a first visit was made, the Kessner Index cross-tabulates the timing of entry into care with the number of visits recorded and the gestational length of the pregnancy. This index method provides a better measure of whether an appropriate quantity of care is received. The Kessner Index does not, however, measure the content or quality of care provided.

The modified Kessner Index adopted by NCHS and used by CDF is illustrated in Table 5.1. It differs slightly from the original index in terms of the gestational age at which the measurement begins (seventeen weeks under the modified index versus thirteen or fewer weeks in the original index). Both the original and modified indices require that the first visit occur within the first trimester of pregnancy. Both also assume that care is inadequate if it is not begun until the last trimester of pregnancy. Women whose care patterns do not fall into either an "adequate" or "inadequate" category are considered to have received "intermediate" level care.

TABLE 5.1

Modified Kessner Index Criteria

	Gestation (weeks)		Number of Prenatal Visits
Adequate care:			
	17	and	2 or more
	18-21	and	3 or more
	22-25	and	4 or more
	26-29	and	5 or more
	30-31	and	6 or more
	32-33	and	7 or more
	34-35	and	8 or more
	36 or more	and	9 or more

In addition, the first prenatal visit must have occurred within the first trimester of pregnancy (by 12 weeks).

Inadequate care:			
	17-21	and	0
	22-29	and	1 or fewer
	30-31	and	2 or fewer
	32-33	and	3 or fewer
	34 or more	and	4 or fewer

Intermediate care: All combinations other than those otherwise specified.

International Infant Mortality

The international infant mortality data in this book are from the United Nations Children's Fund (UNICEF, *The State of the World's Children*, Oxford University Press, 1988). The infant mortality rates are for 1986. All twenty-eight countries with the lowest worldwide infant mortality rates were included in the table.

UNICEF does not publish these infant health indicators by race. To derive the U.S. white and black infant mortality rate contained in the international health tables, the black and white mortality rates were rounded to conform to the UNICEF policy of whole numbers.

Calculations of Progress Toward the Surgeon General's 1990 Objectives for the Nation

In 1979 and 1980, the Public Health Service set out five major goals, including the reduction of infant mortality, as well as objectives in fifteen priority areas, including pregnancy and infant health, immunizations, and maternal mortality. In 1983 a set of specific implementation plans to accompany the fifteen objectives was published by the U.S. Department of Health and Human Services. In 1985 the Department undertook a mid-course review of the objectives. Results from this project were released in November 1986, in a book entitled *The 1990*

Health Objectives for the Nation: A Midcourse Review. The CDC recently produced additional projections based on 1981-1985 trends, and published these findings in *Morbidity and Mortality Weekly Report* 37 (26):405 in July 1988.

The Health of America's Children uses six of the Surgeon General's thirteen pregnancy and infant health objectives to chart national and state-by-state rates of progress. The six objectives are infant mortality for all races, infant mortality for subgroups, neonatal mortality, low birthweight for all races, low birthweight for subgroups, and receipt of early prenatal care. Another objective, immunization for two-year-olds, also has been used. Immunization levels for the polio vaccine are used in this book as a proxy for all immunizations. The same goal has been established for mumps, rubella, measles, and DTP (diphtheria, tetanus, and pertussis) vaccines. An objective for postneonatal mortality, published by the U.S. Public Health Service in *Public Health Reports* (1984 Vol. 99 No. 2, 184-192), also was used.

A conservative analysis of the trend data yielded the difference between 1978 and 1986 rates or percentages and the difference between the 1986 rate or

TABLE 5.2

Low Birthweight Trends and Projections

Year	A Actual Number of Births	B Percent of Low-Birthweight Births[1]	C Number of Low-Birthweight Births[1]	D Percent of Low-Birthweight Births Needed to Meet 1990 Objective[2]	E Number of Low-Birthweight Births Needed to Meet 1990 Objective[2]	F Excess Number of Low-Birthweight Births
1978	3,333,279	7.11%	236,342	7.108%	236,342	(0)
1979	3,494,398	6.94%	241,826	6.933%	241,727	99
1980	3,612,258	6.84%	246,292	6.758%	243,332	2,960
1981	3,629,238	6.81%	246,749	6.583%	238,452	8,297
1982	3,680,537	6.75%	248,104	6.408%	235,482	12,622
1983	3,638,933	6.82%	247,668	6.233%	226,489	21,179
1984	3,669,141	6.72%	246,105	6.058%	221,978	24,127
1985	3,760,651	6.75%	253,554	5.883%	221,234	32,320
1986	3,756,547	6.80%	255,550	5.708%	214,424	41,126
1987	3,873,000	6.8%	263,364	5.533%	214,293	49,071
1988	3,879,000	6.7%	259,893	5.358%	207,837	52,056
1989	3,871,000	6.7%	259,357	5.183%	200,634	58,723
1990	3,849,000	6.7%	257,883	5.008%	192,758	65,125
1991	3,815,000	6.6%	251,790	5.000%	190,750	61,040
1992	3,772,000	6.6%	248,952	5.000%	188,600	60,352
1993	3,725,000	6.5%	242,125	5.000%	186,250	55,875
1994	3,675,000	6.5%	238,875	5.000%	183,750	55,125
1995	3,628,000	6.5%	235,820	5.000%	181,400	54,420
1996	3,586,000	6.4%	229,504	5.000%	179,300	50,204
1997	3,551,000	6.4%	227,264	5.000%	177,550	49,714
1998	3,524,000	6.3%	222,012	5.000%	176,200	45,812
1999	3,506,000	6.3%	220,878	5.000%	175,300	45,578
2000	3,495,000	6.3%	220,185	5.000%	174,750	45,435
Total					2,843,795	789,657

[1]Actual percentages and numbers of low-birthweight births are presented for the years 1978-1986. For 1987-2000, projections were calculated.

[2]Percentages and numbers presented are those that would be necessary to meet the Surgeon General's Low-Birthweight Objective for 1990, using 1978 as the base year.

percentage and the 1990 objective. Per-year changes are obtained by dividing the number of years into the total change for the period.

This book also discusses the nation's progress toward additional maternal and infant health objectives related directly to access to care, such as the extent of regionalization, appropriately attended deliveries, and participation by children in primary care. Because no national trend data measuring access to care in these ways are available, we do not apply the same trend analysis to these objectives.

AFDC, Medicaid, and WIC Benefits

Calculations using comparisons with the federal poverty level are based on poverty income guidelines issued in February 1988 (*Federal Register*, Vol. 53 No. 29). For purposes of this book, the poverty level for a family of three has been selected as a standard of comparison, since many of the families receiving public aid consist of a single parent and two children. A single annual poverty income standard is set for the District of Columbia and all but two states. Poverty guidelines for Alaska and for Hawaii are scaled up by 25 and 15 percent, respectively. The annual poverty level for a three-person family in 1988 was $9,690 in the continental United States, $12,110 in Alaska, and $11,150 in Hawaii (monthly levels were $807.50, $1,009.17, and $929.17, respectively).

States' AFDC standard of need and payment level data are based on a telephone survey conducted by the Congressional Research Service in July 1988. Some states may have revised their need standards or payment levels subsequent to that date. However, because states revise welfare eligibility standards throughout the year, we are forced to present the most recent program "snapshot" available. Additionally, AFDC payment levels represent the maximum payment level available in a state, since many states vary their payment levels by geographic region or in accordance with other factors, such as whether a family rents or owns a home.

Statistics on the federal Special Supplemental Food Program for Women, Infants, and Children (WIC) are from the Center on Budget and Policy Priorities, which uses data from the U.S. Department of Agriculture (USDA) and the U.S. Bureau of the Census. Estimates of the numbers of persons eligible for WIC are from a USDA study, "Estimation for the WIC Program," published in July 1987. This study includes estimates of the number of women, infants, and children in each state who were income-eligible and at nutritional risk (the two eligibility requirements for participation in WIC) in 1979. The income data were derived from data collected in the 1980 Census. The data on nutritional risk came from the 1976-1980 National Health and Nutrition Examination Survey (NHANES-II) and the 1980 National Natality Survey (NNS). While the Census Bureau does not compile state income data annually, it does compile national income data annually, and the USDA study includes a national estimate of the number of women, infants, and children who met WIC's income eligibility requirement in 1984.

To estimate the number of women, infants, and children in each state who were fully eligible (that is, who met the income and nutritional risk criteria) for WIC in 1984, the Center on Budget and Policy Priorities determined the percentage increase in the national number of women, infants, and children who were fully eligible in 1984 as compared with the national number of women, infants, and children who were fully eligible in 1979. That percentage was applied to each state's number of women, infants, and children who were fully eligible in 1979. The estimates of the number of fully eligible women, infants, and children in 1984 by state are approximations, since not all states experienced the same increases in the number of women, infants, and children with incomes less than 185 percent of the poverty line (the maximum WIC eligibility level) between 1979 and 1984 as did the country as a whole. One additional adjustment was made in

the projected 1984 eligibility estimates for each state. In the seventeen states that operated the Commodity Supplemental Food Program (CSFP) in August 1988, the estimated eligible pool for the WIC program was decreased by the number of persons already participating in CSFP. This is necessary because the two programs serve almost the same population and individuals are not permitted to participate in both programs. Thus, women and children participating in CSFP are not eligible to participate in WIC and should not be counted as part of the eligible population for WIC.

Federal WIC participant data were taken from USDA's "WIC Program, State Agency Participation and Expenditure Report for FY 1988," dated November 23, 1988.

The numbers of women and children served by state WIC programs were derived from a survey of state WIC agencies conducted by the Center on Budget and Policy Priorities in December 1988.

The Health of America's Children presents program-related data for states in two different ways.

State Rankings

In Part Three and Part Four, states are ranked based on the relative size of their maximum AFDC payment levels. The states also are ranked for the relative generosity of their AFDC standards of need. While the actual payment level in most states governs families' AFDC and Medicaid eligibility, several states (Colorado, Maine, Michigan, Mississippi, Oklahoma, South Carolina, Tennessee, and Utah) utilize a different method of calculating eligibility that provides at least some AFDC benefits, as well as Medicaid coverage, to families whose incomes exceed AFDC payment levels but are less than the AFDC standard of need. In these states, categorically eligible individuals or families with modest earnings can receive Medicaid as long as their incomes fall below the standard of need, even if they exceed the AFDC payment level.

For example, in Mississippi the maximum 1988 monthly AFDC grant level for a family of three with no income was $120. However, categorically eligible families with incomes above this payment level but below the state's AFDC monthly standard of need ($368) may be financially eligible for Medicaid. Thus, the AFDC payment level for a family of three with no income in Mississippi does not fully reflect that state's Medicaid coverage of poor families.

Fifty-State Medicaid Eligibility Chart

As Medicaid eligibility for children has expanded in recent years, it also has become far more difficult to track state changes, particularly as states have moved away from AFDC categorical and financial criteria in providing Medicaid coverage to pregnant women and children. To aid readers, *The Health of America's Children* presents two national Medicaid tables in Part Three showing Medicaid eligibility characteristics and levels for children and pregnant women as of October 1988.

These tables are by no means exhaustive of the options available to states with respect to Medicaid coverage for children. However, the list of options is so extensive that their presentation in even two state charts is virtually impossible. Therefore, we have chosen several of the most important options for presentation. The information presented in these tables was collected by CDF in an on-going survey throughout the year.

Calculating the Cost of Low Birthweight

Excess Number of Low-Birthweight Births, 1978-2000

Calculations were made of the excess number of low-birthweight births that can be expected to occur by 2000 as a result of the nation's failure to make sufficient progress toward meeting the Surgeon General's 1990 low birthweight objective. Using data from Table 4.3, the number of excess low-birthweight births for the period 1978-1986 was calculated in accordance with the following formula:

Excess number of low birthweight births =C -[(A -unknown) x D]

The actual numbers of births (A), the numbers of "unknowns," and the actual number of low-birthweight births for 1978-1986 (C) are based on NCHS data printed annually in the agency's *Monthly Vital Statistics Report*. The projected percent of low birthweight births needed to meet the 1990 Objective (D) is derived by subtracting the average annual change needed between 1978 and 1990 to reach the objective from the actual percentage of low-birthweight births in 1978, which is the base year.

For the years 1987-1990, additional steps were taken to estimate the numbers of births (A), the numbers of low-birthweight births (C), and the percentage of low-birthweight births (B). The "actual" numbers of births (A) for 1987-1990 were drawn from the U.S. Department of Commerce's Middle Series projections in *Population Estimates and Projections.** The "actual" percentage of low-birthweight births (B) each year was calculated by subtracting the average annual change between 1978 and 1986 (0.04) from the previous year's low-birthweight figure. To forecast the "actual" number of low-birthweight births (C) each year, the projected number of births (A) was multiplied by the estimated percentage of low-birthweight births (B).

Costs Associated with Excess Low-Birthweight Births, 1978-1990

The total cost associated with excess low-birthweight births between 1978 and 1990 is based on a per-case cost of $7,861.17. This was derived from neonatal intensive care and rehospitalization costs shown in Tables 5.3 and 5.4. These

TABLE 5.3

Costs of Neonatal Intensive Care for Low-Birthweight Infants (1982)

Birthweight (grams)	Frequency (%)	Costs per Infant
Less than 1,500	100.0	$20,720
1,501-2,500	32.8	2,090

*U.S. Department of Commerce, "Projection of the Population of the United States by Age, Sex, and Race 1983-2080," *Population Estimates and Projections*, Series P-25, No. 952, Issued May 1984.

TABLE 5.4

Costs of Rehospitalization of Low-Birthweight Infants (1982)

Birthweight (grams)	Frequency (%)	Costs per Infant
Less than 1,500	38.2	$ 3,920
1,501-2,500	19.0	1,560

SOURCE: Korenbrot, C., *Comprehensive Prenatal Care as a Medical Benefit: Expected Costs and Savings*, Contract Report to Maternal and Child Health, Department of Health Services, California (1982), and *Additional Costs to the State for Maternal and Child Health with Public Health Block Grants* (1983).

tables show the costs by birthweight in 1982 dollars and the probability of infants in each weight group requiring the services. To arrive at a cost per low-birthweight infant (regardless of the exact weight below 2,500 grams), a weighted average of $5,230.21 was applied. When inflated to reflect 1988 medical care costs, the per-infant cost of care for babies born at low birthweight is $7,861.17.

CDF Board of Directors

Hillary Rodham Clinton
Chair
Partner, The Rose Law Firm
Little Rock, Arkansas

James A. Joseph
Vice Chair
President, Council on Foundations, Inc.
Washington, D.C.

Donna E. Shalala
Vice Chair
Chancellor, University of Wisconsin-Madison
Madison, Wisconsin

Nancy Abraham
Senior Vice President/Investments
Shearson Lehman Hutton
New York, New York

J. LeVonne Chambers
Director, NAACP Legal Defense and Educational Fund
New York, New York

Laura Rockefeller Chasin
Social Worker
Cambridge, Massachusetts

John D. Deardourff
Chairman, Bailey, Deardourff & Associates
McLean, Virginia

Thomas R. Draper
Vice President, Community Relations
Warner Communications, Inc.
New York, New York

Marian Wright Edelman
President, Children's Defense Fund
Washington, D.C.

Winifred Green
President, Southern Coalition for Educational Equity
Jackson, Mississippi

Lucy Hackney
Staff Attorney, Juvenile Law Center
Philadelphia, Pennsylvania

Dorothy I. Height
President, National Council of Negro Women
Alexandria, Virginia

David W. Hornbeck
Visiting Professor of Education and Public Policy
Johns Hopkins University
Baltimore, Maryland

Ruby G. Martin
Attorney
Richmond, Virginia

Joseph L. Rauh, Jr.
General Counsel, Leadership Conference on Civil Rights
Washington, D.C.

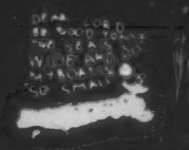
Susan Thomases
Partner, Willkie, Farr & Gallagher
New York, New York

Thomas A. Troyer
Partner, Caplin & Drysdale
Washington, D.C.

Bailus Walker, Jr.
Professor of Environmental Health
State University of New York
Albany, New York

Eddie N. Williams
President, Joint Center for Political Studies
Washington, D.C.

$12.95



Children's Defense Fund
122 C Street, N.W.
Washington, D.C. 20001

ISBN: 0-938008-69-2